ENVIRON

March 20, 2015

Via email

Mr. Steve Armann
Manager, RCRA Corrective Action Office
Waste Management Division
U.S. Environmental Protection Agency, Region IX
75 Hawthorne Street
San Francisco, California 94105-3901

Re: Notification of Additional Locations at Malibu High School and Juan Cabrillo Elementary School to be Addressed in Accordance with October 2014 USEPA Approved Plan

Dear Mr. Armann:

On behalf of the Santa Monica-Malibu Unified School District (SMMUSD or the District), ENVIRON International Corporation (ENVIRON) is providing this notification to U.S. Environmental Protection Agency (USEPA) Region IX of additional areas at Malibu High School (MHS) and Juan Cabrillo Elementary School (JCES) that will be addressed in accordance with SMMUSD's USEPA-approved Toxic Substances Control Act (TSCA) polychlorinated biphenyls (PCBs) Clean-up and Disposal Approval under 40 CFR 761.61(c) dated October 31, 2014[1] (October 2014 Approval).[2] Pursuant to the October 2014 Approval, SMMUSD will "remove from Malibu High School and Juan Cabrillo Elementary School any newly-discovered PCB-containing caulk within one year after the District verifies that the caulk contains PCBs at or above 50 ppm."[3]

This letter provides information on the additional areas at MHS and JCES with building materials (caulk) with identified and verified concentrations above 50 parts per million (ppm) PCBs. These areas will be addressed in accordance with the approved methods in the October 2014 Approval. SMMUSD is currently developing a proposed schedule for completion of the removal in these additional areas. Once the schedule is developed, it will be communicated to USEPA Region IX.

The areas identified in this notification are in rooms at MHS and JCES where ENVIRON conducted a visual inspection of locations where Public Employees for Environmental Responsibility (PEER) and America Unites for Kids (AU)[4] conducted unverified building materials sampling/testing and reported PCB concentrations in bulk samples exceeding 50 ppm (herein referred to as third party testing or reported sampling). This letter summarizes what is known about the reported third party sampling and ENVIRON's inspection findings and sampling results.

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[1] USEPA, 2014. Letter from Jared Blumenfeld/USEPA to Sandra Lyon/SMMUSD. October 31. Available online: http://www.smmusd.org/PublicNotices/EnvDocs/EPAtoSL_103114.pdf

[2] This approval was for ENVIRON. 2014. *Supplemental Removal Information for the Library, Building E - Rooms 1, 5, and 8 and Building G - Room 506 at Malibu High School.* September 26. Available online: http://smmusd.org/PublicNotices/MHSSuppRemovalSSP092614.pdf

[3] In the event that the procedures described in the October 2014 Approval cannot be implemented within one year following identification and verification, SMMUSD will submit a request for an extension of time to USEPA.

[4] America Unites for Kids was previously known as Malibu Unites for Healthy Schools

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Third Party Reported Bulk Sampling for PCBs

Based on documents on the PEER and AU websites[5,6] and on information available to ENVIRON provided in Attachment A, the following third party sampling activities by PEER/AU have been identified:

- On May 10 and 12, 2014, 27 bulk samples reportedly were collected at MHS and JCES. Although the chain of custodies for these samples do not contain a date that the samples were relinquished by field personnel, the samples arrived at Frontier Analytical Laboratory in El Dorado Hills, California on May 13, 2014; however, AU asked that the samples be placed on hold before they were analyzed. Of the original 27 bulk samples listed on the AU chains of custodies, only 26 were received by Frontier Analytical Laboratory. On June 9, 2014, AU requested that Frontier Analytical Laboratory send six samples (3 caulk and 3 dirt or vent soil) to BC Laboratories Inc. in Bakersfield, California for analysis per USEPA Method 8082 for PCBs. The six samples were received by BC Laboratories on June 13, 2014. In August 2014, Frontier analyzed the remaining 20 samples for PCBs and 2 had additional congener analyses conducted. Analyses included Modified USEPA Method 1668C for PCB congeners as well as analysis for PCB-126. Not all sample results have been reported in information available to ENVIRON.
- On August 15, 2014, six bulk samples reportedly were collected from MHS and JCES (Attachment A). Although the chain of custody for these samples does not contain a date that the samples were relinquished by field personnel, the samples were received by Eurofins CalScience, Inc. in Garden Grove, California on August 20, 2014. The samples were analyzed per USEPA Method 8082 for PCBs.
- On September 23 and November 20, 2014, six bulk samples reportedly were collected from MHS and JCES (Attachment A). Although the chain of custody for these samples does not contain a date that the samples were relinquished by field personnel, the samples were received by Eurofins CalScience, Inc. in Garden Grove, California on September 30 and November 28, 2014. The samples were analyzed per USEPA Method 8082 for PCBs.

Of the 39 samples reported on the chain of custodies cited above, results for only 24 were provided based on information available to ENVIRON (see Attachment A) and not all were samples of interior building materials. The total reported PCB concentrations for all Aroclors ranged from 1.6 to 370,000 ppm. The methodology used to collect the samples, the sample location selection, what decontamination procedures were used between samples collected, or the reason why some samples were selectively submitted for analysis or results not released is not provided.[7] Table 1 contains a summary of the reported third party collected bulk samples and total PCB concentrations where analysis data was available. As indicated in Table 1 (yellow highlighting), 14 samples have a reported PCB concentration greater than 50 ppm.

ENVIRON's inspection focused on presumed sample locations of this third party testing with PCB concentrations greater than 50 ppm.

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[5] Public Employees for Environmental Responsibility (PEER). Available online at http://www.peer.org/

[6] AmericaUnites for Kids (AU). Available online at http://americaunites.com/

[7] Information requests to AU/PEER to provide additional information needed to verify sample locations and results were made on the behalf of SMMUSD on July 23, 2014 and September 22, 2014. All the requested information has yet to be provided to SMMUSD or ENVIRON.

Inspection of Third Party Tested Rooms

On January 31, 2015, ENVIRON conducted a visual inspection of select accessible areas at MHS and JCES to attempt to identify the locations where third party tests showed reported results greater than 50 ppm PCBs. Although the third party testing included a sample identification "key" with the bulk sampling results, ENVIRON was not able to definitively determine many of the sample room locations due to vague descriptions and/or incomplete sample documentation including the following:

- ENVIRON was not able to identify the location of the caulk sample reportedly collected from a worker dragging a bag (ID AIR DUCT GUY).
- The exact location of JCES office (ID JC OFFICE) was not identified as there are several offices in JCES as well as an entire office building, Building A.
- The same identification issues were apparent in evaluating the location of an interior window caulk sample from Room 3 (ID JJ1) as there is a Room 3 at both MHS and JCES. Based on additional samples reportedly collected from MHS Room 3 in Building E (000, Blue Shark) JCES Building B Room 3 was not the presumed location and therefore was not inspected.

In addition, the highest third party reported PCB concentration (370,000 ppm) was from an interior door frame in Room 506 (i.e., woodshop) in Building G (500, Angel Shark) at MHS. Room 506 has since been incorporated into a group of rooms previously identified by the District[8] that were included and will be addressed under the October 2014 Approval. As a result, Room 506 was not inspected or photographed during this investigation.

ENVIRON's identifications or assumptions regarding the rooms with third party sampling are described in Table 1. ENVIRON's inspection findings for rooms with third-party reported PCB concentrations greater than 50 ppm are presented in Table 2 and associated Figures. Photographs of the inspection are archived and available upon request.

As shown in Table 2 and associated Figures, there are uncertainties regarding the third party sampling locations in these rooms as ENVIRON observed multiple areas of missing (or gaps in the) caulking in most cases. Therefore, the specific area where a third party sample was taken cannot be verified without the additional information previously requested of AU/PEER on September 22 and 24, 2014 but not yet provided by them. This previously requested material included the following:

- The date and time the samples were collected;
- The school, building and placarded room number where the samples were collected;
- The location within each room at the Malibu Campus where the samples were taken;
- The party who collected the samples;
- A complete chain of custody of the samples from the time that they were collected to when they were received by the laboratory and how they were stored from the time of collection until time of laboratory analysis;
- The methodology used to collect such samples;

[8] Library, Building E - Rooms 1, 5, and 8 and Building G - Room 506 at Malibu High School.

- Any photos and/or field notes taken while the samples were collected; and
- Any third party data validation report.

The additional information listed above would be needed to identify if one of the gaps listed in Table 2 was the location of a sample result reported by AU/PEER.

Sampling of Third Party Tested Rooms

On February 28, 2015, ENVIRON conducted bulk sampling of interior window and door caulking around some of the gaps in caulking judged to more likely have been intentionally removed (as identified in ENVIRON's January inspection, see Table 3). Photographs of the bulk sampling are archived and available upon request. The total PCB results from the 24 bulk caulk samples collected are also reported in Table 3. The total PCB concentrations in all bulk caulk samples collected on February 28, 2015 exceeded 50 ppm. Therefore, the rooms and locations identified in Table 3 and associated Figures constitute the areas covered by this notification. These areas will be addressed using the methods described in the October 2014 Approval. Pursuant to the October 2014 Approval, these other areas listed in Table 3 will be addressed within one year of validation of the sampling results."[9]

Laboratory reports and third party validation of these laboratory reports are included as Attachment B. ENVIRON's Sampling and Analysis Plan is included as Attachment C.

Closing

We would be pleased to answer any questions that you may have about this letter. If you have any questions or would like to discuss this further, please contact either one of us.

Sincerely,

Doug Daugherty, PhD, PE, CIH
Managing Principal

Eric S. Wood, PG, PHg, LSP
Principal

Attachments:

Tables
Figures
A: Third Party Reported Bulk Sampling for PCBs Laboratory Reports
B: Laboratory Analytical Reports and Data Validation for ENVIRON's Bulk Sampling of MHS and JCES
C: ENVIRON's Sampling and Analysis Plan: Malibu High School and Juan Cabrillo Elementary School

[9] In the event that the procedures described in this Supplement cannot be implemented within one year following identification and verification, SMMUSD will submit a request for an extension of time to USEPA.

Tables

Table 1. Rooms Reportedly Sampled by America Unites for Kids (AU) and Public Employees for Environmental Responsibility (PEER)
Malibu High School and Juan Cabrillo Elementary School
Malibu, California

AU/PEER Reported Results									ENVIRON Presumed Location			
AU Sample ID	Date Sampled	Sample Description	Reported Sample Material	Date Lab Received	Date Lab Analyzed	Aroclor Results (mg/kg)			Building	Placard Room ID	Floor Plan Room ID	Room Description
						1254	1260	Total				
First Round of Results Reported												
JJ1	5/10/2014	Room 3, Interior Window	Caulk	5/13/2014	6/19/2014	9.7	--	9.7	MHS E (000, Blue Shark)[1]	3	118	Classroom
WW2	NR	Woodshop interior door frame	Caulk	6/13/2014	6/19/2014	370,000	--	370,000	MHS G (500, Angel Shark)[2]	506	403	Wood shop
SS1	5/10/2014	Grout outside Student Store	Caulk	6/13/2014	6/19/2014	5.3	--	5.3	MHS H (Cafeteria/Auditorium)	Student Store	126,127	Student Store
LL1	5/10/2014	Inside PE Office[3] exterior window, clear caulk	Caulk	5/13/2014	6/19/2014	12.0	--	12.0	MHS J (700, Old Gymnasium)	704, 705, or 722	117, 115, or 139	PE Office
LL2	5/10/2014	Inside PE Office[3] exterior window	Caulk	5/13/2014	6/19/2014	190.0	--	190.0				
LL5	5/10/2014	PE Office[3] inside window	Caulk	5/13/2014	6/19/2014	1.8	--	1.8				
JJC1	5/10/2014	Juan Cabrillo Room 19	Caulk	5/13/2014	6/19/2014	340,000	--	340,000	JCES F	19	19	Music room
JJC3	5/10/2014	Juan Cabrillo outside bathroom	Window Grout	5/13/2014	6/19/2014	1.6	--	1.6	JCES C	Girls' restroom	143	Girls' restroom
BB5	5/10/2014	Dirt Room 1	Soil - in Wall Vent[4]	5/13/2014	6/19/2014	2.7	--	2.7	MHS E (000, Blue Shark)	1	116	Classroom
AJ1	5/12/2014	Room 2 dirt	Wall Vent Soil[4]	6/13/2014	6/19/2014	1.6	--	1.6	MHS E (000, Blue Shark)	2	108	Classroom
KK1	5/10/2014	Dirt Room 5	Soil - in Wall Vent[4]	5/13/2014	6/19/2014	2.0	--	2.0	MHS E (000, Blue Shark)	5	120	Classroom
TT2	NR	NR	Caulk - Maint Theater	NR	NR	NR	NR	NR	Insufficient ID, no laboratory results provided.	--	--	--
ART	5/10/2014	Exterior window	Caulk	6/13/2014	6/19/2014	4.3	--	4.3	Insufficient ID.	--	--	--
JJC2	5/10/2014	Bathroom	Caulk	5/13/2014	NR	NR	NR	NR	Insufficient ID, no laboratory results provided.	--	--	--
TT3	NR	NR	Window Glaze	NR	NR	NR	NR	NR	Insufficient ID, no laboratory results provided.	--	--	--
LL3	5/10/2014	NR	Dirt and Dust	5/13/2014	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
LL4	5/10/2014	NR	Wipe Dust	5/13/2014	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
BB1	5/10/2014	NR	Felt - Vent	5/13/2014	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
BB2	5/10/2014	NR	Vent - Wipe	5/13/2014	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
BB3	5/10/2014	NR	Wipe - Inside Cab/Trench	5/13/2014	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
BB4	5/10/2014	NR	Wipe - Under sink - Trench	5/13/2014	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
TT1	NR	NR	Vent - Wipe - Blw Kit & GR	NR	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
WW1	NR	NR	Carpet Sample	NR	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
RMG	NR	NR	Wall Vent Dirt	NR	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
AJ2	NR	NR	Wall Vent Dust/Wipe	NR	NR	NR	NR	NR	No building material sampled, no laboratory results provided.	--	--	--
Ceiling Bulk TT	NR	NR	NR	NR	NR	NR	NR	NR	Insufficient ID, no laboratory results provided.	--	--	--
Paint TT	NR	NR	NR	NR	NR	NR	NR	NR	Insufficient ID, no laboratory results provided.	--	--	--
Second Round of Results Reported												
French - MHS	8/15/2014	MHS room 205: interior door frame	Caulk	8/20/2014	8/24/2014	200	--	200	MHS D (100 &200, Mako Shark)	205	205	Classroom
7 - MHS	8/15/2014	MHS room 7: interior window frame	NR	8/20/2014	8/24/2014	190	--	190	MHS E (000, Blue Shark)	7	122	Classroom
10 - MHS	8/15/2014	MHS room 10: interior window frame	NR	8/20/2014	8/24/2014	32	--	32		10	101	Classroom
505 - MHS	8/15/2014	MHS room 505: interior door frame on north wall of room	NR	8/20/2014	8/25/2014	180,000	51,000	231,000	MHS G (500, Angel Shark)	505	404N	Art classroom
401 - MHS	8/15/2014	MHS room 401: interior office window frame	NR	8/20/2014	8/25/2014	120,000	26,000	146,000	MHS I (400, Leopard Shark)	401	401	Classroom
Air Duct Guy	8/15/2014	Caulking found from worker dragging bag	Caulk	8/20/2014	8/24/2014	27	31	58	Insufficient ID, location undetermined.	--	--	--
Third Round of Results Reported												
MH 704	9/23/2014	MHS room 704: Caulk in a door frame in a hallway	Caulk	9/30/2014	10/7/2014	4,700	--	4,700	MHS J (700, Old Gymnasium)	704	117	Faculty Office
MH3	9/23/2014	MHS room 3: caulk	Caulk	9/30/2014	10/7/2014	330	--	330	MHS E (000, Blue Shark)	3	118	Classroom
JC OFFICE	11/20/2014	JCES office: interior window caulk	Caulk	11/28/2014	12/5/2014	710	--	710	JCES A[5]	All	All	Administration Office
JC 18	11/20/2014	JCES room 18: interior window caulk	Caulk	11/28/2014	12/5/2014	110,000	--	110,000	JCES F	18	R18	PTA room
JC 22	11/20/2014	JCES room 22: interior window caulk	Caulk	11/28/2014	12/5/2014	74,000	--	74,000		22	R22	Art classroom
JC23	11/20/2014	JCES room 23: interior window caulk	Caulk	11/28/2014	12/5/2014	85,000	--	85,000		23	R23	Overflow/music room

Notes:

1. AU reportedly sampled Room 3. There are two potential locations, one in MHS Building E (000, Blue Shark) and one in JCES Building B. Due to the additional sample reportedly collected from MHS Building E (000, Blue Shark), Room 3 was assumed to be reportedly collected from MHS.
2. Room 506 of MHS Building G (500, Angel Shark) was not accessible at the time of the investigation, however this room has already been incorporated into a group of rooms included under the USEPA Region IXs October 31, 2014 approval letter.
3. AU reportedly sampled the PE office. There is no PE office in JCES, and there are three PE Offices in Building J (700, Old Gymnasium) of MHS (Rooms 704, 705, and 722).
4. Reported sample material was not caulk nor building material, therefore no further investigation was conducted.
5. AU reportedly sampled the JCES office. There are a couple offices at JCES, including Building A which is the Administration Office.
6. Yellow highlighted cells have reported total PCB concentrations exceeding 50 parts per million (ppm).
7. Blue highlighted cells indicate reported samples that are either not of building materials (e.g. dirt and dust) or do not have sufficient information to determine a location.

Abbreviations:

AU = America Unites
ID = identification
JCES = Juan Cabrillo Elementary School
mg/kg = milligrams per kilogram
MHS = Malibu High School
NR = not reported
PE = physical education
PEER = Public Employees for Environmental Responsibility
ppm = parts per million
PTA = parent teacher association

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Table 2. Inspection Results of Locations Reportedly Sampled by a Third Party with Total PCB Concentrations Greater than 50 ppm in Building Materials
Malibu High School and Juan Cabrillo Elementary School
Malibu, California

Building	Placard Room ID	Floor Plan Room ID	Room Description	Number of Windows	Number of Doors	Number of Sinks	Sample Description as Provided by AU	Gap ID	Gap Location	Gap Length (cm)	Notes	Figure
MHS												
D (100 & 200, Mako Shark)	205	205	Classroom	NA	1	NA	MHS room 205: interior door frame	NI	NI	NI	Some areas of chipped paint, and some separated caulking. No apparent evidence of any tool removed caulk on interior door frame, reported as area sampled.	1
E (000, Blue Shark)	3	118	Classroom	6	1	1	Room 3, Interior Window; MHS room 3: caulk	3-1	Window B	NA	Door: No gaps identified. Sink: No gaps identified. Window A: Missing all caulk, uncertain if removed or never present. Window B: Generally big gaps and spotty -uncertain if deterioration or removal. Window C: Sill missing silver caulk in lower right. Window D: Lower left frame missing silver caulk. Window E: Removal of somewhat clear caulk along sill, gaps in upper frame of window. Unsure if removal was purposeful in gaps 3-6 and 3-7. Window F: Missing silver caulk in multiple areas along lower	2
								3-2		NA		
								3-3	Window C	7.5		
								3-4	Window D	20.5		
								3-5	Window E	10.5		
								3-6		NA		
								3-7		NA		
								3-8	Window F	21		
								3-9		15		
								3-10		18.5		
	7	122	Classroom	6	NA	NA	MHS room 7: interior window frame	7-1	Window C	19	Window A: No apparent gaps. Window B: Appears to be missing foam gasket between metal frame and glass. Window C: Missing silver caulk. Window D: No apparent gaps. Window E: Foam gasket missing or not aligned properly. Window F: Missing silver caulk.	3
								7-2	Window F	15		
G (500, Angel Shark)	505	404N	Art classroom	NA	3 interior on North wall, 2 exterior	NA	MHS room 505: interior door frame on north wall of room	505-1	Door B	74	Sides of the door and associated door caulk covered by secondary fabric boards. Door A: No apparent gaps. Door B: Missing caulk on top right edge of door. Door C: No apparent gaps.	4
I (400, Leopard Shark)	401	401	Classroom	2 interior windows	NA	NA	MHS room 401: interior office window frame	401-1	Window B	8.5	Window A: Glass removed, residual clear caulk remains, no other apparent gaps or removed areas. Window B: Two small gap on lower left side in addition to a large shredded area.	5
										10		
										36		
J (700, Old Gymnasium)[1]	704	117	Faculty office	3 exterior, 6 interior	NA	NA	Inside PE Office exterior window, clear caulk; PE Office inside window	704-1	Window A	36.5	Window A: Gap in clear caulk on top of bottom window. Window B: Apparent gap of removed caulk from lower right sill, missing gray caulk on middle window. Window C: Gap along top and underside of lower window, long stretch of missing caulk and hanging transparent caulk. Window D: No apparent gaps. Window E: Three small gaps on top of window between glass and frame. Window F: No apparent gaps. Window G: No apparent gaps. Window H: Removed stretch of painted caulk on bottom sill. Window I: No apparent gaps.	6
								704-2	Window B	14.5		
								704-3	Window C	40		
								704-4	Window B	3.5		
								704-5	Window H	22.5		
								704-6	Window E	13		
										5		
										4.5		
	704 Hall	115A	Vestibule to 117	NA	3	NA	MHS room 704: Caulk in a door frame in a hallway	704 Hallway Interior -1	Door	124	Door caulk generally intact, other than a long scratch, on right hand side.	7
	705	115	Office	1 exterior, 2 interior	NA	NA	Inside PE Office exterior window, clear caulk; PE Office inside window	NI	NI	NI	Exterior caulk has been repaired, no apparent gaps identified. Interior left side window has been painted over, no gaps identified. Most caulk appears to have been removed on all four sides of interior right side window.	7
	722	139	Faculty office	2 exterior, 4 interior	NA	NA	Inside PE Office exterior window, clear caulk; PE Office inside window	722-1	Left Exterior Window	4	Exterior caulk has been repaired over top of old caulk. No gaps identified on interior windows. Interior caulk is new and over top of existing caulk.	8

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Table 2. Inspection Results of Locations Reportedly Sampled by a Third Party with Total PCB Concentrations Greater than 50 ppm in Building Materials
Malibu High School and Juan Cabrillo Elementary School
Malibu, California

Building	Placard Room ID	Floor Plan Room ID	Room Description	Number of Windows	Number of Doors	Number of Sinks	Sample Description as Provided by AU	Gap ID	Gap Location	Gap Length (cm)	Notes	Figure
JCES												
A[1]	100J	Principal's Office	Principal's Office	9	NA	NA	JCES office interior window caulk	NI	NI	NI	No apparent gaps from tool removal; some repair caulk. Possible gaps likely due to incomplete repair caulk in the Nurse's Office and Teachers' workroom.	9
	100L,100E	Main Office	Main Office	7	NA	NA		NI	NI	NI		
	100F	Community Liaison	Nurse's Office/ community liaison	6	NA	NA		Office-1	Window C	10		
	100B	100B	Teachers' workroom	3	NA	NA		Office-2	Window B	35		
F	R18	18	PTA room	5	NA	NA	JCES room 18: interior window caulk	18-1	Window A	37	Bottom window sill covered in masking tape. Bottom window panes recaulked except Window C and part of Window D. Middle and upper panes do not appear to be recaulked. Window A: One gap of missing masking tape and potentially grey caulk. Window B: No apparent gaps. Window C: Some areas of apparent deteriorated caulk on lower window pane. Window D: No apparent gaps. Window E: One gap of potentially missing grey caulk.	10
								18-2	Window E	14		
	R19	19	Music room	5	1 exterior, 1 interior	1	Juan Cabrillo Room 19	19-1	Window C	9	No gaps in doors or sink caulk, but caulk separated from laminate splash board near sink. Exterior door caulk appears intact and painted over. Exterior window caulk appears intact, some small gaps likely due to weathering. Window A: No apparent gaps, some repair caulk. Window B: No apparent gaps, some repair caulk. Window C: Gap on right side, some repair caulk on lower pane. Window D: Gap on left side, spotty repair caulk on lower and middle panes. Window E: No apparent gaps, repair caulk on lower pane.	11
								19-2	Window D	19		
	R22	22	Art classroom	5	NA	NA	JCES room 22: interior window caulk	22-1	Window A	19.5	Caulk between frames and wall is generally painted over, some separation gaps from wall but no apparent missing gaps. Window A: Two potential gaps in gray caulk along bottom window sill. Window B: One potential gap in gray caulk along bottom window sill. Window C: Two potential gaps in gray caulk along bottom window sill. Window D: One potential gap in gray caulk on left side. Window E: One potential gap in gray caulk along sill, caulk on bottom window pane appears shrunken into the gap.	12
								22-2		24		
								22-3	Window B	19		
								22-4	Window C	25		
								22-5		5		
								22-6	Window D	22		
								22-7	Window E	17		
	R23	23	Overflow room/music room	5	NA	NA	JCES room 23: interior window caulk	23-1	Window B	7	Caulk between frame and wall generally painted over, some separations noted but no apparent missing gaps. Window A: No apparent tool-removed caulk, some repair caulk and some missing patches possible due to deterioration. Window B: Some repair caulk on lower window pane, two gaps on right side of window. Window C: Some repair caulk, no apparent gaps. Window D: Some repair caulk, one gap on sill in gray caulk. Window E: Some repair caulking, no apparent gaps.	13
								23-2		23		
								23-3	Window D	52		

Notes:
1. AU reportedly sampled the PE office. There is no PE office in JCES, and there are three PE Offices in Building J (700, Old Gymnasium) of MHS (Rooms 704, 705, and 722).
2. AU reportedly sampled the JCES office. There are a couple offices at JCES, including Building A which is the Administration Office.
3. Blue highlighted cells indicate areas where ENVIRON did not perform sampling due to uncertainty in the AU sampled locations. ENVIRON did not identify areas of intentional caulk sampling locations in its investigation.

Abbreviations:

AU = America Unites	NA = not applicable
cm = centimeters	NI = not identified
ID = identification	PE = physical education
JCES = Juan Cabrillo Elementary School	ppm = parts per million
MHS = Malibu High School	PTA = parent teacher association

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Table 3. Caulk Sample Results from ENVIRON's Investigation
Malibu High School and Juan Cabrillo Elementary School
Malibu, California

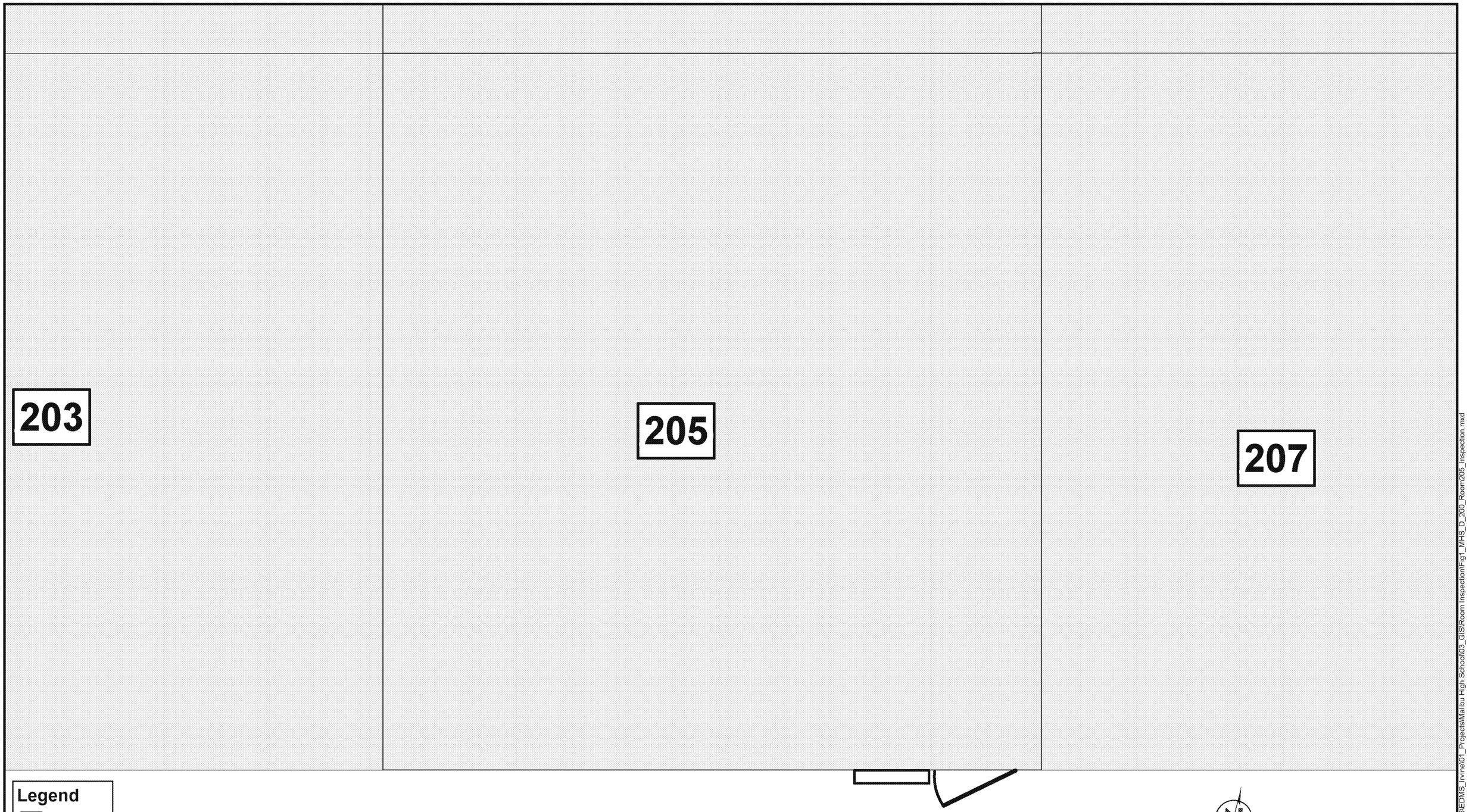
Building	Placard Room ID	Floor Plan Room ID	Room Description	Gap ID	Caulk Sample ID	Caulk Sample Length (cm)	Caulk Sample Mass (g)	Aroclor Results (mg/kg)	Figure
MHS									
E (000, Blue Shark)	3	118	Classroom	3-4	022815-MHS-B000-R3-L4-C1	44	14.5	**1,600 J**	2
				3-10	022815-MHS-B000-R3-L10-C1	48	7.0	**1,800 J**	
	7	122	Classroom	7-1	022815-MHS-B000-R7-L1-C1	35	3.5	**330**	3
				7-2	022815-MHS-B000-R7-L2-C1	39	3.2	**1,800**	
G (500, Angel Shark)	505	404N	Art classroom	505-1	022815-MHS-B500-R505-L1-C1	88	5.8	**220,000 J**	4
I (400, Leopard Shark)	401	401	Classroom	401-1	022815-MHS-B400-R401-L1-C1	113	4.3	**190,000 J**	5
J (700, Old Gymnasium)	704	117	Faculty office	704-2	022815-MHS-B700-R704-L2-C1	74	3.5	**4,500**	6
				704-5	022815-MHS-B700-R704-L5-C1	7	3.4	**1,800 J**	
					022815-MHS-B700-R704-L5-C2	6	3.6	**1,500**	
	704 Hall	115A	Vestibule to 117	704 Hallway Interior -1	022815-MHS-B700-R704Hall-L1-C1	84	1.9	**3,800 J**	7
JCES									
F	R18	18	PTA room	18-1	022815-JCES-BF-R18-L1-C1	57	2.2	**290,000**	10
					022815-JCES-BF-R18-L1-C2	40.5	2.1	**270,000**	
				18-2	022815-JCES-BF-R18-L2-C1	45	3.4	**230,000**	
	R19	19	Music room	19-1	022815-JCES-BF-R19-L1-C1	65	3.2	**390,000**	11
					022815-JCES-BF-R19-L1-C2	88	6.3	**570,000**	
				19-2	022815-JCES-BF-R19-L2-C1	75	8.6	**560,000**	
	R22	22	Art classroom	22-6	022815-JCES-BF-R22-L6-C1	68	3.7	**280,000**	12
					022815-JCES-BF-R22-L6-C2	49	3.2	**470,000**	
				22-7	022815-JCES-BF-R22-L7-C1	30	1.3	**220,000**	
					022815-JCES-BF-R22-L7-C2	62.5	3.6	**130,000**	
	R23	23	Overflow room/music room	23-1	022815-JCES-BF-R23-L1-C1	79	4.8	**350,000**	13
					022815-JCES-BF-R23-L1-C2	5	1.3	**440,000**	
				23-2	022815-JCES-BF-R23-L2-C1	45	3.3	**280,000**	
				23-3	022815-JCES-BF-R23-L3-C1	66	2.7	**180,000**	

Note:
1. Analytical report (1503051) was provided by the laboratory, ALS Environmental. Samples were analyzed by USEPA Method 8082.
2. DVR (33878 - Level IV validation) was provided by LDC. The %R for the laboratory control samples were slightly higher than the QC limits of 50-130% affecting all TCL compounds, which were detected (J qualified).
3. All yellow highlighted cells with bold text have total PCB concentrations exceeding 50 parts per million (ppm), which is defined and regulated as an "unauthorized use" under the United States Environmental Protection Agency (USEPA) Toxic Substances Control Act (TSCA) 40 CFR 761.

Abbreviations:
cm = centimeters
g = grams
ID = identification
J = Indicates an estimated value
JCES = Juan Cabrillo Elementary School
mg/kg = milligrams per kilogram
MHS = Malibu High School
NA = not applicable, not identified
ppm = parts per million
PTA = parent teacher association
QC = quality control
TCL = target compound list
TSCA = Toxic Substances Control Act
USEPA = United States Environmental Protection Agency

ENVIRON

Figures



Legend
- Window
- Door

Notes:
1. Window and door dimensions are approximate.

0 4 8
Feet

Path: \\Irvine06\EDMS_Irvine\01_Projects\Malibu High School\03_GIS\Room Inspection\Fig1_MHS_D_200_Room205_Inspection.mxd

ENVIRON

DRAFTED BY: RRH | Date: 2/11/2015

Inspection of Room 205 in Second Floor of Building D (200, Mako Shark) at MHS

Malibu High School
30215 Morning View Drive, Malibu, California

Figure
1

PROJECT: 0433980N

L10-C1 3-10
3-9
F
3-8
3-7 3-5
E 3-6
D
118
L4-C1 3-4
3-3
C
3-2
B
3-1
A

Legend
- Windows
- Door
- Gap Locations
- Sample Locations

Notes:
1. Window and door dimensions are approximate.
2. Gap locations are approximate.

0 2 4 8
Feet

Path: \\Irvine06\EDMS_Irvine\01_Projects\Malibu High School\03_GIS\Room Inspection\Fig2_MHS_E_000_Room3_Inspection.mxd

ENVIRON

Caulk Inspection and Sampling of Room 3 in Building E (000, Blue Shark) at MHS

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 2

DRAFTED BY: RRH | Date: 3/12/2015 | PROJECT: 0433980P

7-2
L2-C1

F

E

D

122

C

L1-C1
7-1

B

A

Legend

- Windows
- Door
- Gap Locations
- Sample Locations

Notes:
1. Window and door dimensions are approximate.
2. Gap locations are approximate.

0 2 4 8
Feet

Path: \\Irvine06\EDMS_Irvine\01_Projects\Malibu High School\03_GIS\Room Inspection\Fig3_MHS_E_000_Room7_inspection.mxd

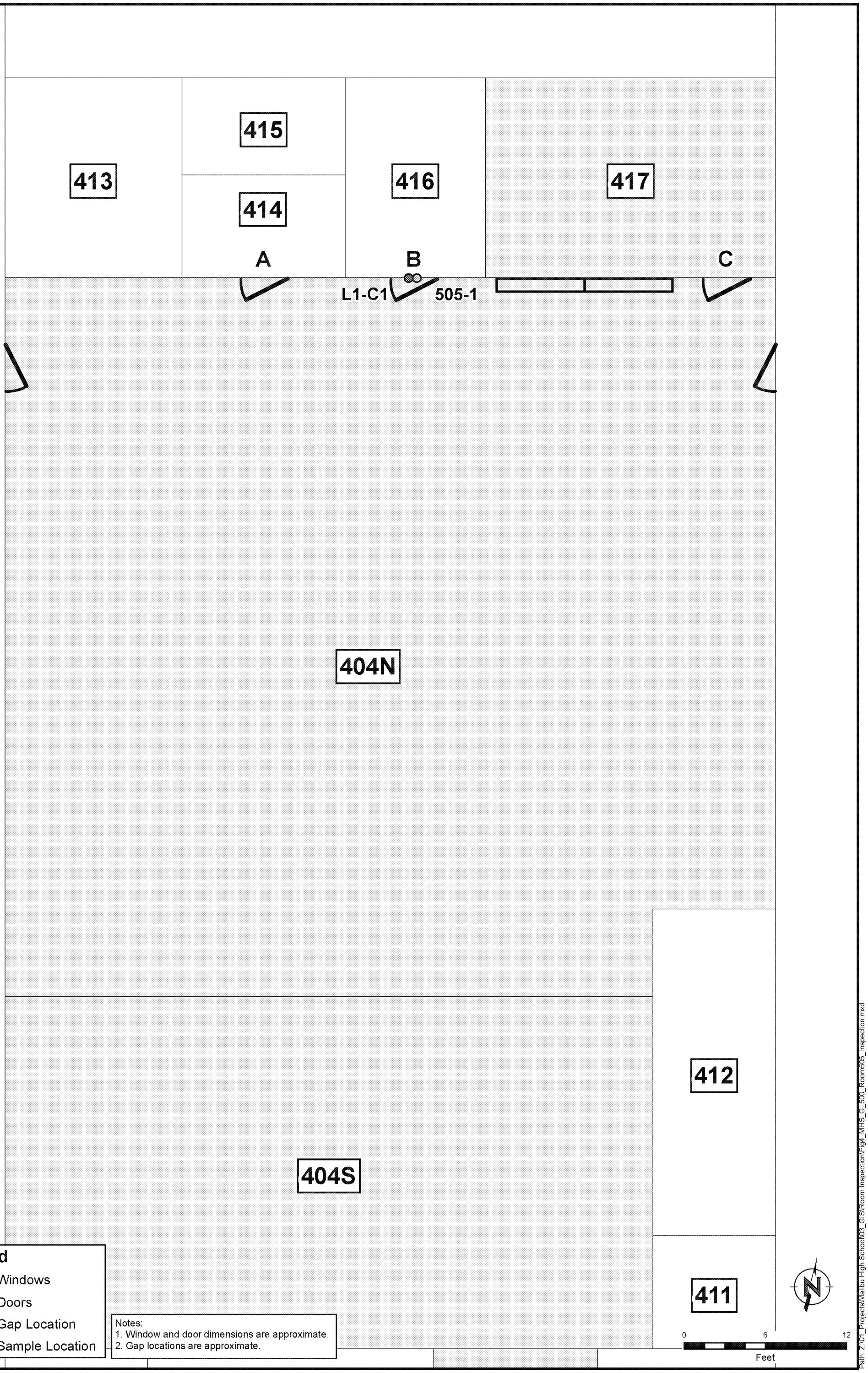
ENVIRON

Caulk Inspection and Sampling of Room 7 in Building E (000, Blue Shark) at MHS

Malibu High School
30215 Morning View Drive, Malibu, California

Figure
3

DRAFTED BY: RRH | Date: 3/12/2015 | PROJECT: 0433980P



ENVIRON

Caulk Inspection and Sampling of Room 505 in Building G (500, Angel Shark) at MHS

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 4

DRAFTED BY: RRH | Date: 3/18/2015 | PROJECT: 0433980P

Legend

- Windows
- Doors
- Gap Location
- Sample Location

Notes:
1. Window and door dimensions are approximate.
2. Gap locations are approximate.

0 2.5 5
Feet

Path: \\Irvine06\EDMS_Irvine\01_Projects\Malibu High School\03_GIS\Room Inspection\Fig7_MHS_I_400_Room401_Inspection.mxd

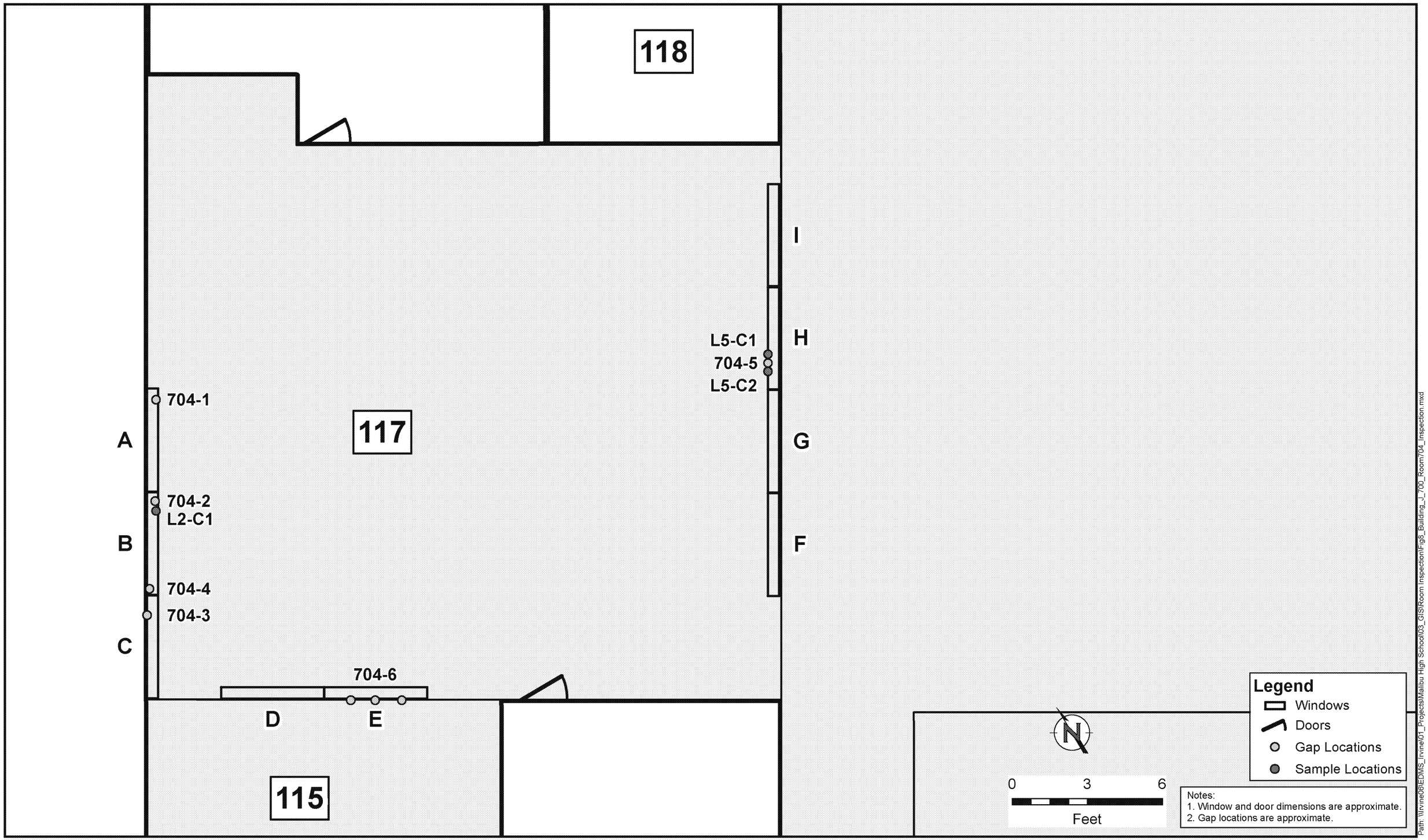
ENVIRON

DRAFTED BY: RRH | Date: 3/12/2015

Caulk Inspection and Sampling of Room 401 in
Building I (400, Leopard Shark) at MHS
Malibu High School
30215 Morning View Drive, Malibu, California

Figure
5

PROJECT: 0433980P



ENVIRON

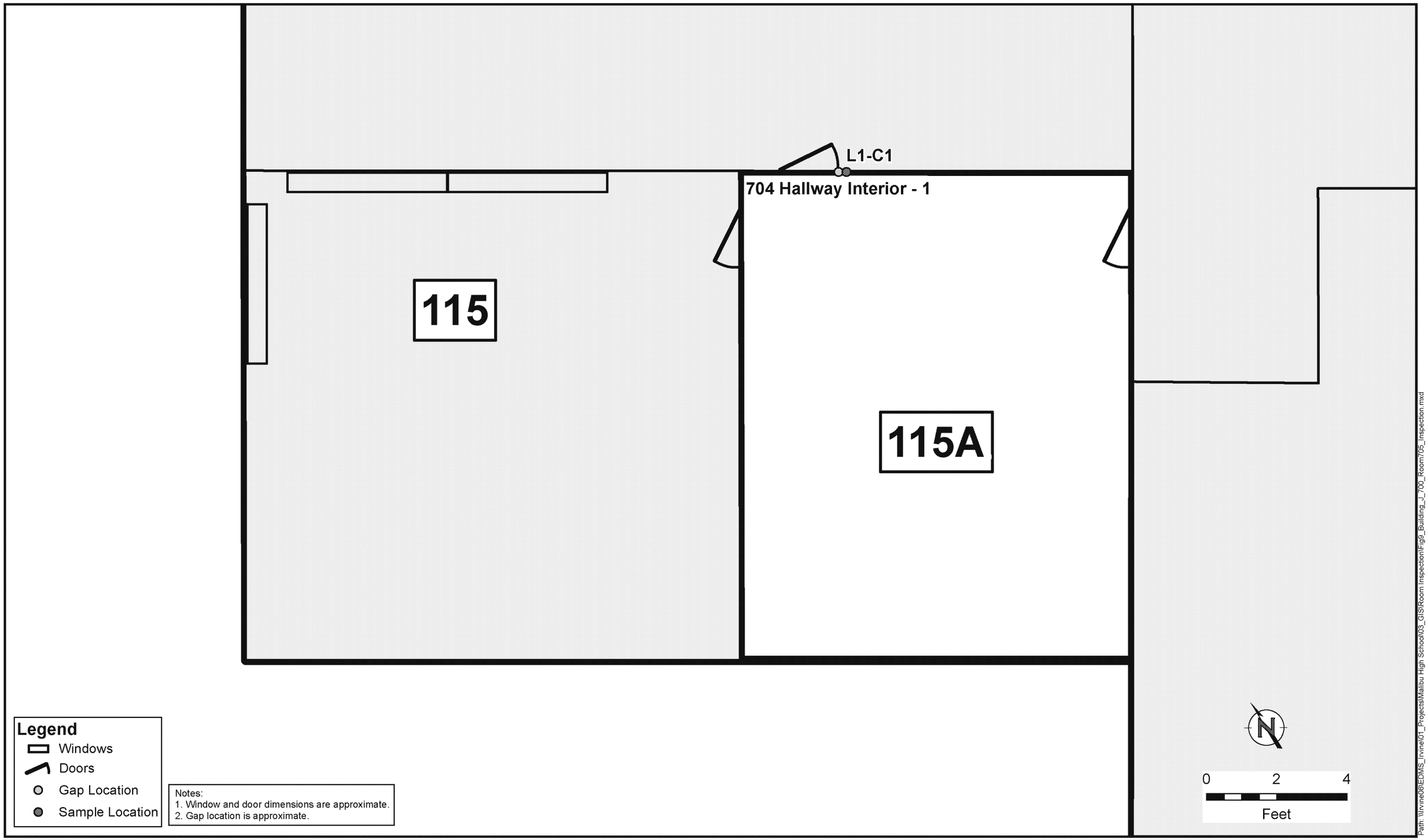
DRAFTED BY: RRH | Date: 3/12/2015

Caulk Inspection and Sampling of Room 704 in Building J (700, Old Gymnasium) at MHS

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 6

PROJECT: 0433980P



ENVIRON

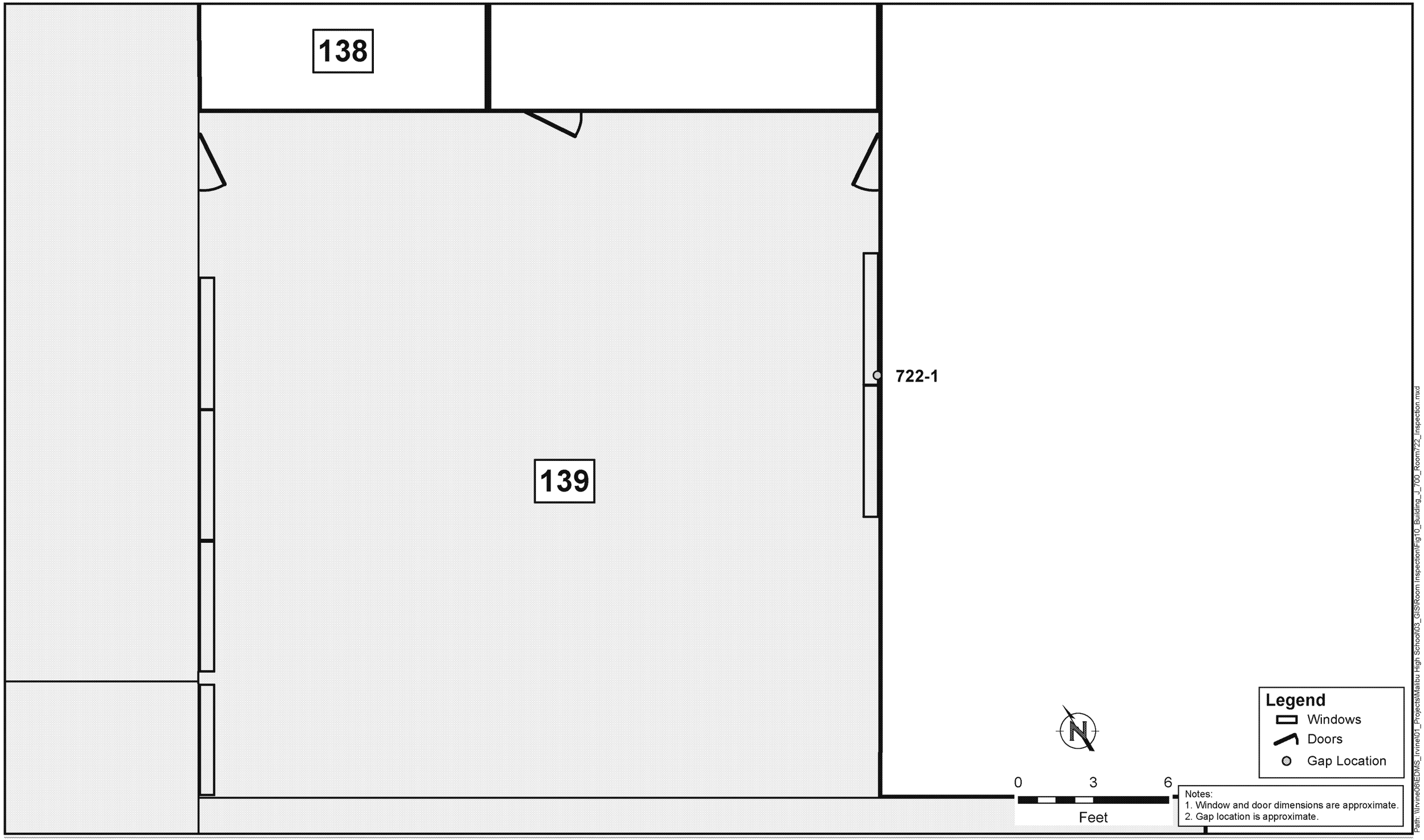
DRAFTED BY: RRH | Date: 3/12/2015

Caulk Inspection and Sampling of Room 705 and Room 704 Hallway in Building J (700, Old Gymnasium) at MHS

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 7

PROJECT: 0433980P



ENVIRON

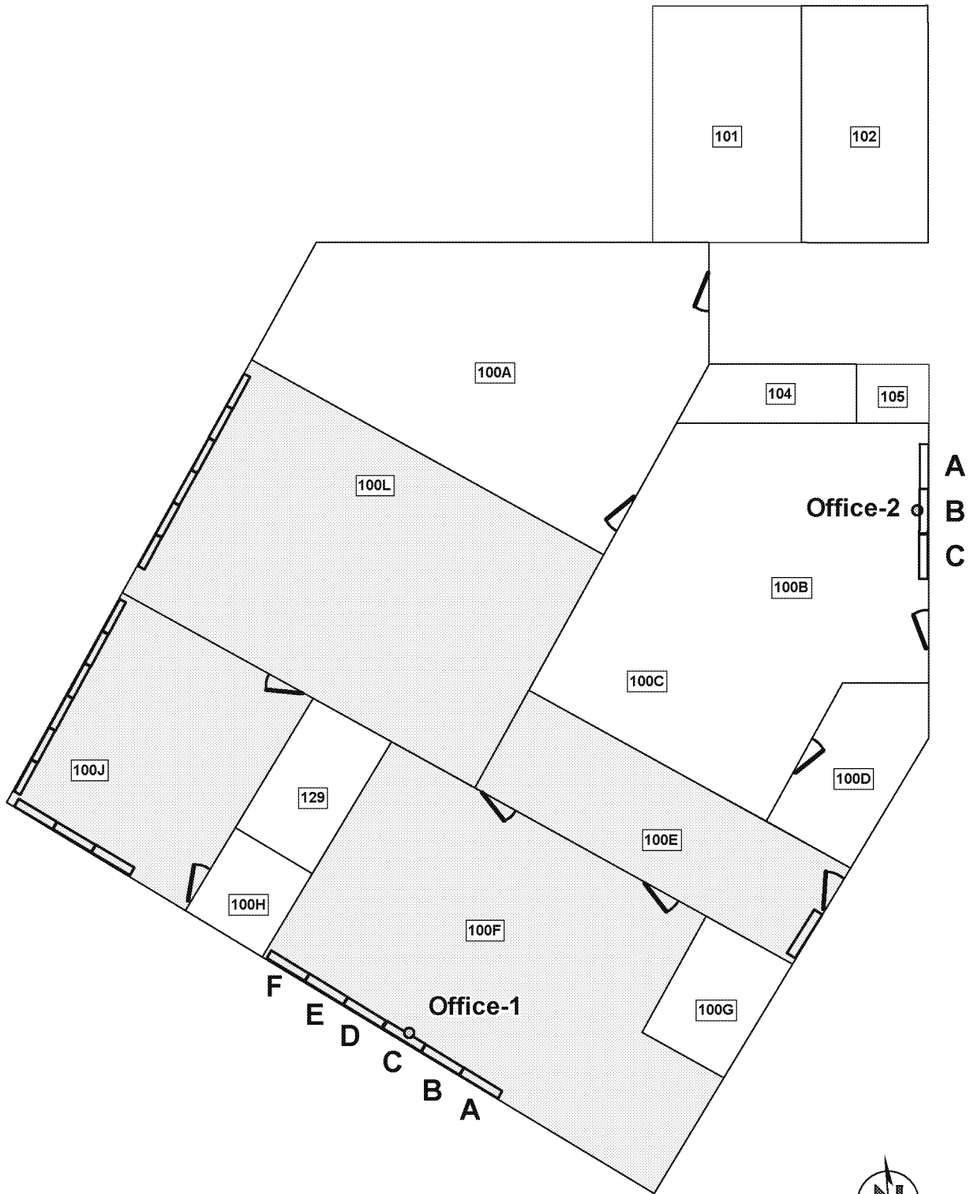
DRAFTED BY: RRH | Date: 2/12/2015

Inspection of Room 722 in Building J (700, Old Gymnasium) at MHS

Malibu High School
30215 Morning View Drive, Malibu, California

Figure 8

PROJECT: 0433980P



Legend

- Windows
- Doors
- Gap Locations

Notes:
1. Window and door dimensions are approximate.
2. Gap locations are approximate.

N

0 10 20

Feet

Path: \\Irvine06\IEDMS_Irvine\01_Projects\Malibu High School\03_GIS\Room Inspection\Fig11_JCES_A_OfficeInspection.mxd

ENVIRON

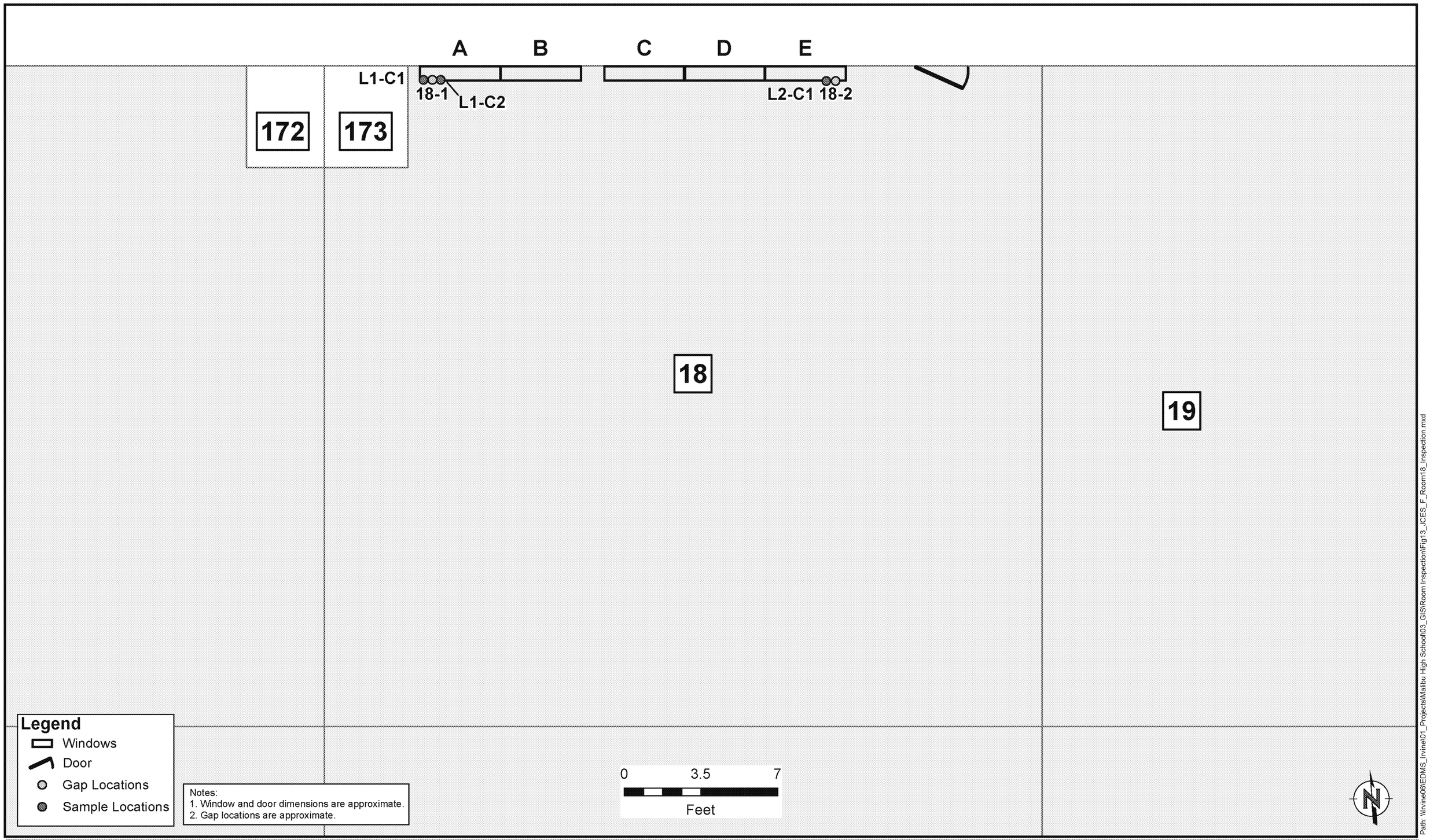
DRAFTED BY: RRH | Date: 2/12/2015

Inspection of Building A at JCES

Juan Cabrillo Elementary School
30237 Morning View Drive, Malibu, California

Figure
9

PROJECT: 0433980P



ENVIRON

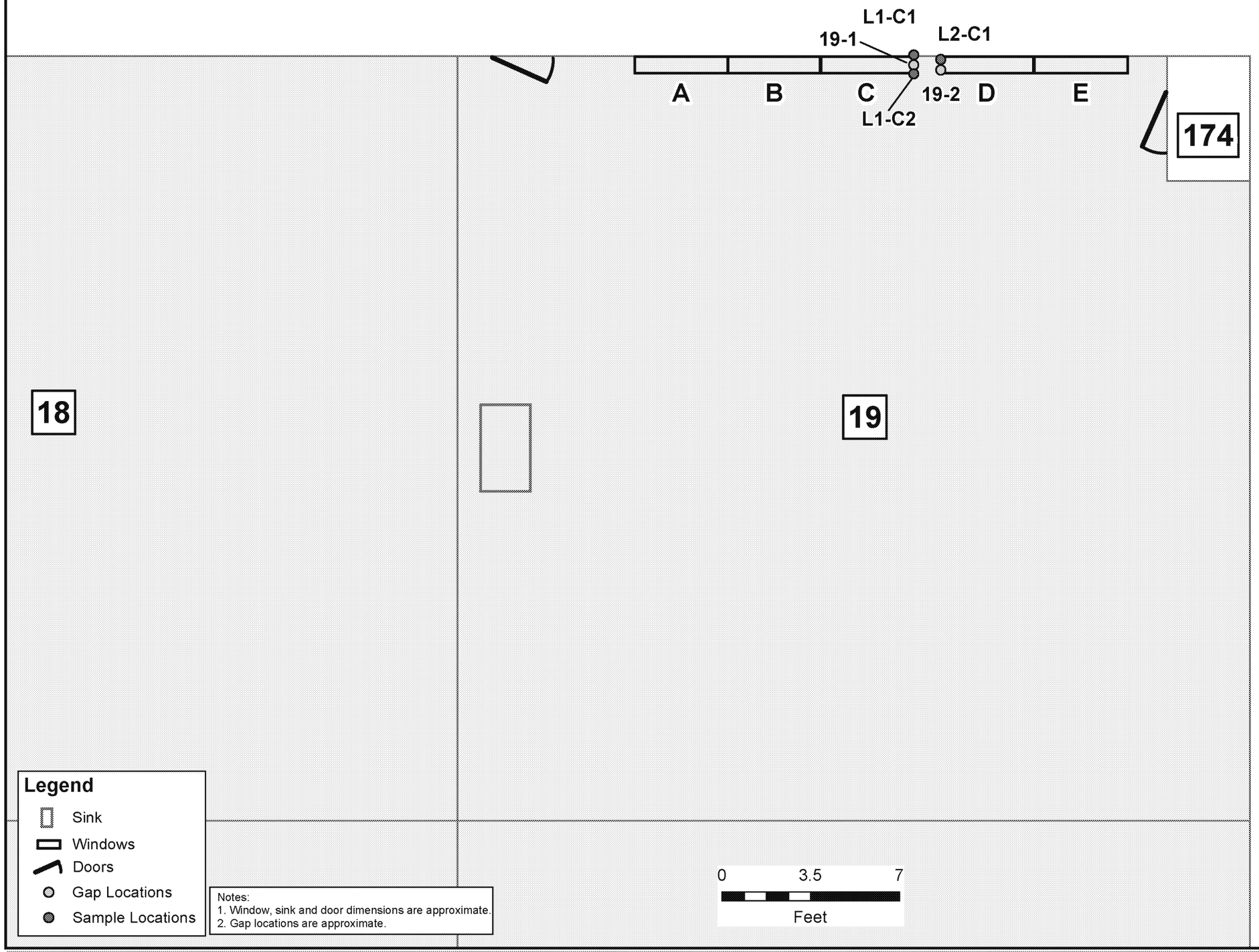
DRAFTED BY: RRH | Date: 3/12/2015

Caulk Inspection and Sampling of Room 18 in Building F at JCES

Juan Cabrillo Elementary School
30237 Morning View Drive, Malibu, California

Figure
10

PROJECT: 0433980P



Caulk Inspection and Sampling of Room 19 in Building F at JCES

Juan Cabrillo Elementary School
30237 Morning View Drive, Malibu, California

ENVIRON

DRAFTED BY: RRH | Date: 3/12/2015

Figure 11

PROJECT: 0433980P

Path: \\Irvine06\IEDMS_Irvine\01_Projects\Malibu High School\03_GIS\Room Inspection\Fig14_JCES_F_Room19_Inspection.mxd

21

22

23

176

177

22-7 L6-C1 22-5 22-4 22-3 22-2 22-1

22-6

L7-C2 E L7-C1 D L6-C2 C B A

Legend

- Windows
- Door
- Gap Locations
- Sample Locations

Notes:
1. Window and door dimensions are approximate.
2. Gap locations are approximate.

N

0 3.5 7

Feet

Path: \\Irvine06\EDMS_Irvine\01_Projects\Malibu High School\03_GIS\Room Inspection\Fig15_JCES_F_Room22_Inspection.mxd

ENVIRON

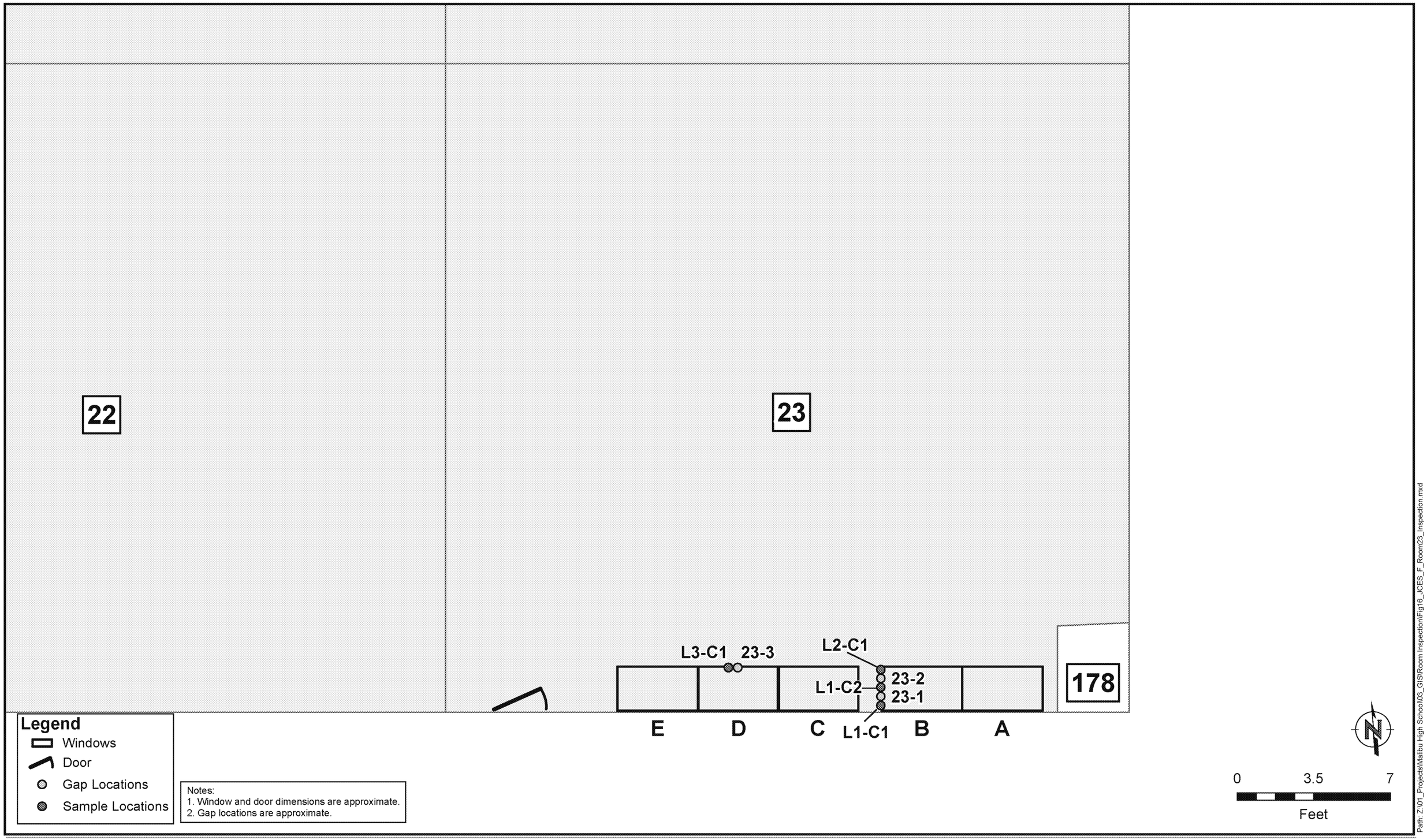
DRAFTED BY: RRH | Date: 3/12/2015

Caulk Inspection and Sampling of Room 22 in Building F at JCES

Juan Cabrillo Elementary School
30237 Morning View Drive, Malibu, California

Figure 12

PROJECT: 0433980P



Path: Z:\01_Projects\Malibu High School\03_GIS\Room Inspection\Fig16_JCES_F_Room23_Inspection.mxd

ENVIRON

DRAFTED BY: RRH | Date: 3/18/2015

Caulk Inspection and Sampling of Room 23 in Building F at JCES

Juan Cabrillo Elementary School
30237 Morning View Drive, Malibu, California

Figure
13

PROJECT: 0433980P

ED_002022B_00026808-00023

Attachment A

Third Party Reported Bulk Sampling for PCBs Laboratory Reports

Appendix A.1

Third Party Reported Results
BC Laboratories Report
June 19, 2014

BC Laboratories, Inc.
Environmental Testing Laboratory Since 1949

Date of Report: 06/19/2014

Brad Silverbush

Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762

Client Project: [redacted]
BCL Project: 8081
BCL Work Order: 1413266
Invoice ID: B176092

Enclosed are the results of analyses for samples received by the laboratory on 6/13/2014. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tina Green

Contact Person: Tina Green
Client Services Manager

Authorized Signature

Table of Contents

Chain of Custody and Cooler Receipt Form for 1413266 Page 1 of 4

White Copy – Report Yellow Copy – Laboratory Pink Copy - Originator

Chain of Custody

www.frontieranalytical.com

FRONTIER ANALYTICAL LABORATORY

Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762
Tel: 916-934-0900
Fax: 916-934-0999

FAL USE ONLY
Laboratory Project No.: _____
Temperature: _____ °C

Please Print in Pen Page 1 of 1

CLIENT INFORMATION
Company Name: Frontier Analytical Laboratory
Contact Name: Brad Silverbush
Address: 5172 Hillsdale Circle, El Dorado Hills, CA 95762
Phone: 916-934-0900 Fax: 916-934-0999
Email: brads@frontieranalytical.com

INVOICE INFORMATION (if different from client info)
Company Name: Same
Contact Name: _____
Address: _____
Phone: _____ Fax: _____
Email: _____

PROJECT INFORMATION
FAL Quote #: _____
P.O. #: _____
Project #: [redacted]
Project Name: _____
TAT (business days): ☐ 15 ☐ 10 ☑ 5* ☐ 3* (√ one)
* FAL must agree with price and RUSH TAT in writing.

REPORT INFORMATION
Report Level: ☐ I/II ☐ III ☐ IV
EDD: ☐ FAL Basic ☐ Geotracker ☐ Other: ____ ☐ Custom: Contact FAL
☐ California State Drinking Water Form
System #: Source #:
Sampler: Employer:

REPORT DISTRIBUTION (email only is preferred)
☐ Hardcopy
☐ CD (.pdf including EDDs if requested)
☐ Email (.pdf including EDDs if requested)

ADDITIONAL INSTRUCTIONS
Sub to: BC Laboratory
Attn: Stuart Buttram
4100 Atlas Court
Bakersfield, CA 93308
(661) 327-4911
*RESULTS DUE: 6-19-14

14-13264

	Sample ID	Date Collected	Time	Matrix	# of containers	EPA 1613**	EPA 8290**	DLM 02.0	EPA 8280**	Appendix IX	EPA TO-9/9A	EPA 23/23A	EPA 1668	FAL 15	Other	**CONGENERS: ☐ 2,3,7,8-TCDD only ☐ 2,3,7,8-TCDD/F only ☐ PCDD/F (Cl_4-Cl_8)	**TEQ: ☐ 1998 WHO ☐ 2005 WHO ☐ Other	Remarks
1	8489-001-SA LL1	05-10-2014	07:50	Solid											✓			EPA Method 8082 Aroclor/PCB
2	8489-002-SA LL2	05-10-2014	07:50	Solid											✓			EPA Method 8082 Aroclor/PCB
3	8489-005-SA LL5	05-10-2014	08:17	Solid											✓			EPA Method 8082 Aroclor/PCB
4	8489-006-SA JJ1	05-10-2014	08:45	Solid											✓			EPA Method 8082 Aroclor/PCB
5	8489-011-SA BB5	05-10-2014	09:38	Solid				CHK'D							✓			EPA Method 8082 Aroclor/PCB & EPA Method 8081 Pesticides
6	8489-012-SA KK1	05-10-2014	09:54	Solid				DISTRIBUTION							✓			EPA Method 8082 Aroclor/PCB & EPA Method 8081 Pesticides
7	8489-013-SA JJC1	05-10-2014	10:20	Solid											✓			EPA Method 8082 Aroclor/PCB
8	8489-015-SA JJC3	05-10-2014	10:35	Solid											✓			EPA Method 8082 Aroclor/PCB
9	8490-003-SA SS1	05-10-2014	11:25	Solid											✓			EPA Method 8082 Aroclor/PCB
10	8490-004-SA ART	05-10-2014	11:30	Solid											✓			EPA Method 8082 Aroclor/PCB
11	8490-006-SA WW2	05-10-2014	11:45	Solid											✓			EPA Method 8082 Aroclor/PCB
12	8490-009-SA AU1	05-12-2014	07:45	Solid											✓			EPA Method 8082 Aroclor/PCB & EPA Method 8081 Pesticides
13																		
14																		
15																		

Samples will be disposed of 90 days after sample receipt unless other arrangements have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	Received by: (Signature and Printed Name)	Date	Time
Kathy Zipp - Frontier Analytical	6/12/14	14:09	Crystal Roberts	6/13/14	1020

Client understands that all terms described in the proposals, quotations, and/or the general terms provided in the current FAL price schedules will be followed.
FAL reserves the rights to terminate its service or withhold delivery of reports, if in FAL's sole discretion the terms of the project have been broken.

Chain of Custody and Cooler Receipt Form for 1413266 Page 2 of 4

BC LABORATORIES INC. COOLER RECEIPT FORM Rev. No. 17 06/05/14 Page 1 Of 2

Submission #: 14-13266

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Federal Express ☐ UPS ☐ Hand Delivery ☐	Ice Chest ☒ None ☐ Box ☐	YES ☐ NO ☐
BC Lab Field Service ☐ Other ☒ (Specify) 058	Other ☐ (Specify)	

Refrigerant: Ice ☐ Blue Ice ☒ None ☐ Other ☐ Comments:

Custody Seals: Ice Chest ☐ Intact? Yes ☐ No ☐ | Containers ☐ Intact? Yes ☐ No ☐ | None ☒ Comments:

All samples received? Yes ☒ No ☐ All samples containers intact? Yes ☒ No ☐ Description(s) match COC? Yes ☒ No ☐

COC Received ☒ YES ☐ NO

Emissivity: 0.97 Container: amb glass Thermometer ID: 207 Date/Time 6/13/14 10:20

Temperature: (A) 7.4 °C / (C) 7.5 °C Analyst Init MCM

SAMPLE CONTAINERS	SAMPLE NUMBERS 1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8OZ. JAR	A	A	A	A	A	A	A	A	A	A
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments:

Sample Numbering Completed By: [signature] Date/Time: 6/13/14 1268

A = Actual / C = Corrected

S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC16

Chain of Custody and Cooler Receipt Form for 1413266 Page 3 of 4

BC LABORATORIES INC. **COOLER RECEIPT FORM** Rev. No. 17 06/05/14 Page 2 Of 2

Submission #: 14-13266

SHIPPING INFORMATION	SHIPPING CONTAINER	FREE LIQUID
Federal Express ☐ UPS ☐ Hand Delivery ☐ BC Lab Field Service ☐ Other ☑ (Specify) GSO	Ice Chest ☑ None ☐ Box ☐ Other ☐ (Specify)	YES ☐ NO ☐

Refrigerant: Ice ☐ Blue Ice ☑ None ☐ Other ☐ Comments:

Custody Seals Ice Chest ☐ Intact? Yes ☐ No ☐ Containers ☐ Intact? Yes ☐ No ☐ None ☑ Comments:

All samples received? Yes ☑ No ☐ All samples containers intact? Yes ☑ No ☐ Description(s) match COC? Yes ☑ No ☐

COC Received ☑ YES ☐ NO

Emissivity: 0.97 Container: amber/glass Thermometer ID: 207 Date/Time 6/13/14 10:20

Temperature: (A) 7.4 °C / (C) 7.5 °C Analyst Init MEM

SAMPLE CONTAINERS	SAMPLE NUMBERS									
	1	2	3	4	5	6	7	8	9	10
QT GENERAL MINERAL/ GENERAL										
PT PE UNPRESERVED										
QT INORGANIC CHEMICAL METALS										
PT INORGANIC CHEMICAL METALS										
PT CYANIDE										
PT NITROGEN FORMS										
PT TOTAL SULFIDE										
2oz. NITRATE / NITRITE										
PT TOTAL ORGANIC CARBON										
PT TOX										
PT CHEMICAL OXYGEN DEMAND										
PtA PHENOLICS										
40ml VOA VIAL TRAVEL BLANK										
40ml VOA VIAL	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )
QT EPA 413.1, 413.2, 418.1										
PT ODOR										
RADIOLOGICAL										
BACTERIOLOGICAL										
40 ml VOA VIAL- 504										
QT EPA 508/608/8080										
QT EPA 515.1/8150										
QT EPA 525										
QT EPA 525 TRAVEL BLANK										
40ml EPA 547										
40ml EPA 531.1										
8oz Amber EPA 548										
QT EPA 549										
QT EPA 632										
QT EPA 8015M										
QT AMBER										
8 OZ. JAR	A	A								
32 OZ. JAR										
SOIL SLEEVE										
PCB VIAL										
PLASTIC BAG										
FERROUS IRON										
ENCORE										
SMART KIT										
Summa Canister										

Comments:

Sample Numbering Completed By: Date/Time: 6/13/14 12:00 (S:\WPDoc\WordPerfect\LAB_DOCS\FORMS\SAMREC16

A = Actual / C = Corrected

14-1326

Tina Green

From: **STUART BUTTRAM <stuart@bclabs.com>**
Organization: **BC Laboratories**
To: **Brad Silverbush <brads@frontieranalytical.com>**
Date sent: **Thu, 12 Jun 2014 10:11:42 -0800**
Subject: **RE: (Fwd) RE: Analysis**
Send reply to: **<stuart@bclabs.com>**
Copies to: **<tina@bclabs.com>**

Brad:
Yes, yes, yes, yes, etc Send them for Friday delivery. The soil samples will need
8081 and 8082. For the soil samples requiring 8081, 8082 we will need 60 grams for normal
reporting limits our solids reporting limits are 0.01mg/Kg for PCBs using 30 grams so you can
do the math at how much we need to achieve 50. I would like to use at least 5 grams though.
Tina can provide you a quote for the testing below. Tina Brad will need the 8081s full with
our normal list plus alpha and gamma chlordane.

Thanks
Stuart

On 12 Jun 2014 at 9:53, Brad Silverbush wrote:

> Hi Stuart,
>
> Just got off a very long conversation with my client.
>
> In short here is what they are looking for:
>
> A PCB method to test caulk and/or soil. They are referencing TSCA so
> they need well below 50ppm. At this point they don't care about the
> individual congeners (although I think they will want to go back and
> look at the 12 WHO dioxin-like eventually but that is neither here nor

Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762

Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1413266-01	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 07:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8489-001-SA LL1	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-02	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 07:50
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8489-002-SA LL2	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-03	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 08:17
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8489-005-SA LL5	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-04	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 08:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8489-006-SA JJ1	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-05	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 09:38
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8489-011-SA BB5	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-06	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 09:54
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8489-012-SA KK1	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-07	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 10:20
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8489-013-SA JJC1	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil

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Project Manager: Brad Silverbush

Laboratory / Client Sample Cross Reference

Laboratory	Client Sample Information			
1413266-08	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 10:35
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8489-015-SA JJC3	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-09	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 11:25
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8490-003-SA SS1	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-10	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 11:30
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8490-004-SA ART	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-11	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/10/2014 11:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8490-006-SA WW2	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil
1413266-12	COC Number:	---	Receive Date:	06/13/2014 10:20
	Project Number:	---	Sampling Date:	05/12/2014 07:45
	Sampling Location:	---	Sample Depth:	---
	Sampling Point:	8490-009-SA AJ1	Lab Matrix:	Solids
	Sampled By:	---	Sample Type:	Soil

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-01 | **Client Sample Name:** 8489-001-SA LL1, 5/10/2014 7:50:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	1.8	0.48	EPA-8082A	ND		1
PCB-1221	ND	mg/kg	1.8	0.67	EPA-8082A	ND		1
PCB-1232	ND	mg/kg	1.8	0.42	EPA-8082A	ND		1
PCB-1242	ND	mg/kg	1.8	0.71	EPA-8082A	ND		1
PCB-1248	ND	mg/kg	1.8	0.46	EPA-8082A	ND		1
PCB-1254	**12**	**mg/kg**	**1.8**	**0.56**	**EPA-8082A**	ND		1
PCB-1260	ND	mg/kg	1.8	0.28	EPA-8082A	ND		1
Total PCB's (Summation)	**12**	**mg/kg**	**1.8**	**0.88**	**EPA-8082A**	ND		1
Decachlorobiphenyl (Surrogate)	100	%	50 - 140 (LCL - UCL)		EPA-8082A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 09:05	VH1	GC-15	176.47	BXF1322

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-02 | **Client Sample Name:** 8489-002-SA LL2, 5/10/2014 7:50:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	20	5.4	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	20	7.6	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	20	4.8	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	20	8.0	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	20	5.2	EPA-8082A	ND	A01	1
PCB-1254	**190**	**mg/kg**	**20**	**6.4**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	20	3.2	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**190**	**mg/kg**	**20**	**10**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	0	%	50 - 140 (LCL - UCL)		EPA-8082A		A01,A17	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 11:49	VH1	GC-15	2000	BXF1322

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-03 | **Client Sample Name:** 8489-005-SA LL5, 5/10/2014 8:17:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	0.20	0.054	EPA-8082A	ND		1
PCB-1221	ND	mg/kg	0.20	0.076	EPA-8082A	ND		1
PCB-1232	ND	mg/kg	0.20	0.048	EPA-8082A	ND		1
PCB-1242	ND	mg/kg	0.20	0.080	EPA-8082A	ND		1
PCB-1248	ND	mg/kg	0.20	0.052	EPA-8082A	ND		1
PCB-1254	**1.8**	**mg/kg**	**0.20**	**0.064**	**EPA-8082A**	ND		1
PCB-1260	ND	mg/kg	0.20	0.032	EPA-8082A	ND		1
Total PCB's (Summation)	**1.8**	**mg/kg**	**0.20**	**0.10**	**EPA-8082A**	ND		1
Decachlorobiphenyl (Surrogate)	95.0	%	50 - 140 (LCL - UCL)		EPA-8082A			1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 09:27	VH1	GC-15	20	BXF1322

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-04 | **Client Sample Name:** 8489-006-SA JJ1, 5/10/2014 8:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	1.6	0.43	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	1.6	0.60	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	1.6	0.38	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	1.6	0.63	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	1.6	0.41	EPA-8082A	ND	A01	1
PCB-1254	**9.7**	**mg/kg**	**1.6**	**0.51**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	1.6	0.25	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**9.7**	**mg/kg**	**1.6**	**0.79**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	100	%	50 - 140 (LCL - UCL)		EPA-8082A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 09:38	VH1	GC-15	157.89	BXF1322

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Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

Organochlorine Pesticides (EPA Method 8081B)

BCL Sample ID: 1413266-05 | **Client Sample Name:** 8489-011-SA BB5, 5/10/2014 9:38:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.0029	0.00015	EPA-8081B	ND	A11,A26	1
alpha-BHC	ND	mg/kg	0.0029	0.00081	EPA-8081B	ND	A11,A26	1
beta-BHC	ND	mg/kg	0.0029	0.0022	EPA-8081B	ND	A11,A26	1
delta-BHC	ND	mg/kg	0.0029	0.00044	EPA-8081B	ND	A11,A26	1
gamma-BHC (Lindane)	ND	mg/kg	0.0029	0.0014	EPA-8081B	ND	A11,A26	1
alpha-Chlordane	ND	mg/kg	0.0029	0.00050	EPA-8081B	ND	A11,A26	1
gamma-Chlordane	ND	mg/kg	0.0029	0.00036	EPA-8081B	ND	A11,A26	1
Chlordane (Technical)	ND	mg/kg	0.29	0.087	EPA-8081B	ND	A11,A26	1
4,4'-DDD	ND	mg/kg	0.0029	0.00036	EPA-8081B	ND	A11,A26	1
4,4'-DDE	ND	mg/kg	0.0029	0.00026	EPA-8081B	ND	A11,A26	1
4,4'-DDT	ND	mg/kg	0.0029	0.00018	EPA-8081B	ND	A11,A26	1
Dieldrin	ND	mg/kg	0.0029	0.00018	EPA-8081B	ND	A11,A26	1
Endosulfan I	ND	mg/kg	0.0029	0.00050	EPA-8081B	ND	A11,A26	1
Endosulfan II	ND	mg/kg	0.0029	0.00038	EPA-8081B	ND	A11,A26	1
Endosulfan sulfate	ND	mg/kg	0.0029	0.00075	EPA-8081B	ND	A11,A26	1
Endrin	ND	mg/kg	0.0029	0.00020	EPA-8081B	ND	A11,A26	1
Endrin aldehyde	ND	mg/kg	0.0029	0.00035	EPA-8081B	ND	A11,A26	1
Heptachlor	ND	mg/kg	0.0029	0.0015	EPA-8081B	ND	A11,A26	1
Heptachlor epoxide	ND	mg/kg	0.0029	0.00087	EPA-8081B	ND	A11,A26	1
Methoxychlor	ND	mg/kg	0.0029	0.00075	EPA-8081B	ND	A11,A26	1
Toxaphene	ND	mg/kg	0.29	0.043	EPA-8081B	ND	A11,A26	1
TCMX (Surrogate)	93.1	%	20 - 140 (LCL - UCL)		EPA-8081B		A11,A26	1
Decachlorobiphenyl (Surrogate)	102	%	20 - 140 (LCL - UCL)		EPA-8081B		A11,A26	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081B	06/13/14	06/16/14 14:09	VH1	GC-14	5.769	BXF1329

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Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-05 | **Client Sample Name:** 8489-011-SA BB5, 5/10/2014 9:38:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	0.29	0.079	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	0.29	0.11	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	0.29	0.071	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	0.29	0.12	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	0.29	0.076	EPA-8082A	ND	A01	1
PCB-1254	**2.7**	**mg/kg**	**0.29**	**0.094**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	0.29	0.047	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**2.7**	**mg/kg**	**0.29**	**0.15**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	125	%	50 - 140 (LCL - UCL)		EPA-8082A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 09:49	VH1	GC-15	29.412	BXF1322

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

Organochlorine Pesticides (EPA Method 8081B)

BCL Sample ID: 1413266-06 | **Client Sample Name:** 8489-012-SA KK1, 5/10/2014 9:54:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.0027	0.00014	EPA-8081B	ND	A11,A26	1
alpha-BHC	ND	mg/kg	0.0027	0.00076	EPA-8081B	ND	A11,A26	1
beta-BHC	ND	mg/kg	0.0027	0.0021	EPA-8081B	ND	A11,A26	1
delta-BHC	ND	mg/kg	0.0027	0.00041	EPA-8081B	ND	A11,A26	1
gamma-BHC (Lindane)	ND	mg/kg	0.0027	0.0014	EPA-8081B	ND	A11,A26	1
alpha-Chlordane	ND	mg/kg	0.0027	0.00047	EPA-8081B	ND	A11,A26	1
gamma-Chlordane	ND	mg/kg	0.0027	0.00034	EPA-8081B	ND	A11,A26	1
Chlordane (Technical)	ND	mg/kg	0.27	0.082	EPA-8081B	ND	A11,A26	1
4,4'-DDD	ND	mg/kg	0.0027	0.00034	EPA-8081B	ND	A11,A26	1
4,4'-DDE	ND	mg/kg	0.0027	0.00025	EPA-8081B	ND	A11,A26	1
4,4'-DDT	ND	mg/kg	0.0027	0.00017	EPA-8081B	ND	A11,A26	1
Dieldrin	ND	mg/kg	0.0027	0.00017	EPA-8081B	ND	A11,A26	1
Endosulfan I	ND	mg/kg	0.0027	0.00047	EPA-8081B	ND	A11,A26	1
Endosulfan II	ND	mg/kg	0.0027	0.00036	EPA-8081B	ND	A11,A26	1
Endosulfan sulfate	ND	mg/kg	0.0027	0.00071	EPA-8081B	ND	A11,A26	1
Endrin	ND	mg/kg	0.0027	0.00019	EPA-8081B	ND	A11,A26	1
Endrin aldehyde	ND	mg/kg	0.0027	0.00033	EPA-8081B	ND	A11,A26	1
Heptachlor	ND	mg/kg	0.0027	0.0014	EPA-8081B	ND	A11,A26	1
Heptachlor epoxide	ND	mg/kg	0.0027	0.00082	EPA-8081B	ND	A11,A26	1
Methoxychlor	ND	mg/kg	0.0027	0.00071	EPA-8081B	ND	A11,A26	1
Toxaphene	ND	mg/kg	0.27	0.040	EPA-8081B	ND	A11,A26	1
TCMX (Surrogate)	98.0	%	20 - 140 (LCL - UCL)		EPA-8081B		A11,A26	1
Decachlorobiphenyl (Surrogate)	87.9	%	20 - 140 (LCL - UCL)		EPA-8081B		A11,A26	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081B	06/13/14	06/16/14 14:23	VH1	GC-14	5.455	BXF1329

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-06 | **Client Sample Name:** 8489-012-SA KK1, 5/10/2014 9:54:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	0.28	0.075	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	0.28	0.11	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	0.28	0.067	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	0.28	0.11	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	0.28	0.072	EPA-8082A	ND	A01	1
PCB-1254	**2.0**	**mg/kg**	**0.28**	**0.089**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	0.28	0.044	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**2.0**	**mg/kg**	**0.28**	**0.14**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	100	%	50 - 140 (LCL - UCL)		EPA-8082A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 10:00	VH1	GC-15	27.778	BXF1322

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-07 | **Client Sample Name:** 8489-013-SA JJC1, 5/10/2014 10:20:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	25000	6800	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	25000	9500	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	25000	6000	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	25000	10000	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	25000	6500	EPA-8082A	ND	A01	1
PCB-1254	**340000**	**mg/kg**	**25000**	**8000**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	25000	4000	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**340000**	**mg/kg**	**25000**	**12000**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	0	%	50 - 140 (LCL - UCL)		EPA-8082A		A01,A17	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 13:28	VH1	GC-15	2500000	BXF1322

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-08 | **Client Sample Name:** 8489-015-SA JJC3, 5/10/2014 10:35:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	1.0	0.27	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	1.0	0.38	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	1.0	0.24	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	1.0	0.40	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	1.0	0.26	EPA-8082A	ND	A01	1
PCB-1254	**1.6**	**mg/kg**	**1.0**	**0.32**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	1.0	0.16	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**1.6**	**mg/kg**	**1.0**	**0.50**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	125	%	50 - 140 (LCL - UCL)		EPA-8082A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 13:39	VH1	GC-15	100	BXF1322

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-09 | **Client Sample Name:** 8490-003-SA SS1, 5/10/2014 11:25:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	1.7	0.45	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	1.7	0.63	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	1.7	0.40	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	1.7	0.67	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	1.7	0.43	EPA-8082A	ND	A01	1
PCB-1254	**5.3**	**mg/kg**	**1.7**	**0.53**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	1.7	0.27	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**5.3**	**mg/kg**	**1.7**	**0.83**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	100	%	50 - 140 (LCL - UCL)		EPA-8082A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 10:55	VH1	GC-15	166.67	BXF1322

Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762

Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-10 | **Client Sample Name:** 8490-004-SA ART, 5/10/2014 11:30:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	1.6	0.43	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	1.6	0.60	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	1.6	0.38	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	1.6	0.63	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	1.6	0.41	EPA-8082A	ND	A01	1
PCB-1254	**4.3**	**mg/kg**	**1.6**	**0.51**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	1.6	0.25	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**4.3**	**mg/kg**	**1.6**	**0.79**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	100	%	50 - 140 (LCL - UCL)		EPA-8082A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 11:06	VH1	GC-15	157.89	BXF1322

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-11 | **Client Sample Name:** 8490-006-SA WW2, 5/10/2014 11:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	27000	7400	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	27000	10000	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	27000	6500	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	27000	11000	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	27000	7100	EPA-8082A	ND	A01	1
PCB-1254	**370000**	**mg/kg**	**27000**	**8700**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	27000	4400	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**370000**	**mg/kg**	**27000**	**14000**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	0	%	50 - 140 (LCL - UCL)		EPA-8082A		A01,A17	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 13:50	VH1	GC-15	2727300	BXF1322

Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762

Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

Organochlorine Pesticides (EPA Method 8081B)

BCL Sample ID: 1413266-12 | **Client Sample Name:** 8490-009-SA AJ1, 5/12/2014 7:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
Aldrin	ND	mg/kg	0.0029	0.00015	EPA-8081B	ND	A11,A26	1
alpha-BHC	ND	mg/kg	0.0029	0.00082	EPA-8081B	ND	A11,A26	1
beta-BHC	ND	mg/kg	0.0029	0.0022	EPA-8081B	ND	A11,A26	1
delta-BHC	ND	mg/kg	0.0029	0.00045	EPA-8081B	ND	A11,A26	1
gamma-BHC (Lindane)	ND	mg/kg	0.0029	0.0015	EPA-8081B	ND	A11,A26	1
alpha-Chlordane	ND	mg/kg	0.0029	0.00051	EPA-8081B	ND	A11,A26	1
gamma-Chlordane	ND	mg/kg	0.0029	0.00037	EPA-8081B	ND	A11,A26	1
Chlordane (Technical)	ND	mg/kg	0.29	0.088	EPA-8081B	ND	A11,A26	1
4,4'-DDD	ND	mg/kg	0.0029	0.00037	EPA-8081B	ND	A11,A26	1
4,4'-DDE	ND	mg/kg	0.0029	0.00026	EPA-8081B	ND	A11,A26	1
4,4'-DDT	ND	mg/kg	0.0029	0.00018	EPA-8081B	ND	A11,A26	1
Dieldrin	ND	mg/kg	0.0029	0.00019	EPA-8081B	ND	A11,A26	1
Endosulfan I	ND	mg/kg	0.0029	0.00051	EPA-8081B	ND	A11,A26	1
Endosulfan II	ND	mg/kg	0.0029	0.00039	EPA-8081B	ND	A11,A26	1
Endosulfan sulfate	ND	mg/kg	0.0029	0.00076	EPA-8081B	ND	A11,A26	1
Endrin	ND	mg/kg	0.0029	0.00021	EPA-8081B	ND	A11,A26	1
Endrin aldehyde	ND	mg/kg	0.0029	0.00036	EPA-8081B	ND	A11,A26	1
Heptachlor	ND	mg/kg	0.0029	0.0015	EPA-8081B	ND	A11,A26	1
Heptachlor epoxide	ND	mg/kg	0.0029	0.00088	EPA-8081B	ND	A11,A26	1
Methoxychlor	ND	mg/kg	0.0029	0.00076	EPA-8081B	ND	A11,A26	1
Toxaphene	ND	mg/kg	0.29	0.044	EPA-8081B	ND	A11,A26	1
TCMX (Surrogate)	84.7	%	20 - 140 (LCL - UCL)		EPA-8081B		A11,A26	1
Decachlorobiphenyl (Surrogate)	84.0	%	20 - 140 (LCL - UCL)		EPA-8081B		A11,A26	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8081B	06/13/14	06/16/14 14:37	VH1	GC-14	5.882	BXF1329

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5172 Hillsdale Circle
El Dorado Hills, CA 95762

Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

BCL Sample ID: 1413266-12 | **Client Sample Name:** 8490-009-SA AJ1, 5/12/2014 7:45:00AM

Constituent	Result	Units	PQL	MDL	Method	MB Bias	Lab Quals	Run #
PCB-1016	ND	mg/kg	0.53	0.14	EPA-8082A	ND	A01	1
PCB-1221	ND	mg/kg	0.53	0.20	EPA-8082A	ND	A01	1
PCB-1232	ND	mg/kg	0.53	0.13	EPA-8082A	ND	A01	1
PCB-1242	ND	mg/kg	0.53	0.21	EPA-8082A	ND	A01	1
PCB-1248	ND	mg/kg	0.53	0.14	EPA-8082A	ND	A01	1
PCB-1254	**1.6**	**mg/kg**	**0.53**	**0.17**	**EPA-8082A**	ND	**A01**	1
PCB-1260	ND	mg/kg	0.53	0.084	EPA-8082A	ND	A01	1
Total PCB's (Summation)	**1.6**	**mg/kg**	**0.53**	**0.26**	**EPA-8082A**	ND	**A01**	1
Decachlorobiphenyl (Surrogate)	100	%	50 - 140 (LCL - UCL)		EPA-8082A		A01	1

Run #	Method	Prep Date	Run Date/Time	Analyst	Instrument	Dilution	QC Batch ID
1	EPA-8082A	06/13/14	06/19/14 12:55	VH1	GC-15	52.632	BXF1322

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El Dorado Hills, CA 95762

Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

Organochlorine Pesticides (EPA Method 8081B)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BXF1329						
Aldrin	BXF1329-BLK1	ND	mg/kg	0.00050	0.000026	
alpha-BHC	BXF1329-BLK1	ND	mg/kg	0.00050	0.00014	
beta-BHC	BXF1329-BLK1	ND	mg/kg	0.00050	0.00038	
delta-BHC	BXF1329-BLK1	ND	mg/kg	0.00050	0.000076	
gamma-BHC (Lindane)	BXF1329-BLK1	ND	mg/kg	0.00050	0.00025	
alpha-Chlordane	BXF1329-BLK1	ND	mg/kg	0.00050	0.000086	
gamma-Chlordane	BXF1329-BLK1	ND	mg/kg	0.00050	0.000063	
Chlordane (Technical)	BXF1329-BLK1	ND	mg/kg	0.050	0.015	
4,4'-DDD	BXF1329-BLK1	ND	mg/kg	0.00050	0.000063	
4,4'-DDE	BXF1329-BLK1	ND	mg/kg	0.00050	0.000045	
4,4'-DDT	BXF1329-BLK1	ND	mg/kg	0.00050	0.000031	
Dieldrin	BXF1329-BLK1	ND	mg/kg	0.00050	0.000032	
Endosulfan I	BXF1329-BLK1	ND	mg/kg	0.00050	0.000086	
Endosulfan II	BXF1329-BLK1	ND	mg/kg	0.00050	0.000066	
Endosulfan sulfate	BXF1329-BLK1	ND	mg/kg	0.00050	0.00013	
Endrin	BXF1329-BLK1	ND	mg/kg	0.00050	0.000035	
Endrin aldehyde	BXF1329-BLK1	ND	mg/kg	0.00050	0.000061	
Heptachlor	BXF1329-BLK1	ND	mg/kg	0.00050	0.00026	
Heptachlor epoxide	BXF1329-BLK1	ND	mg/kg	0.00050	0.00015	
Methoxychlor	BXF1329-BLK1	ND	mg/kg	0.00050	0.00013	
Toxaphene	BXF1329-BLK1	ND	mg/kg	0.050	0.0074	
TCMX (Surrogate)	**BXF1329-BLK1**	**86.3**	%	**20 - 140 (LCL - UCL)**		
Decachlorobiphenyl (Surrogate)	**BXF1329-BLK1**	**90.4**	%	**20 - 140 (LCL - UCL)**		

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

Organochlorine Pesticides (EPA Method 8081B)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BXF1329										
Aldrin	BXF1329-BS1	LCS	0.0041677	0.0050000	mg/kg	83.4		70 - 130		
gamma-BHC (Lindane)	BXF1329-BS1	LCS	0.0046233	0.0050000	mg/kg	92.5		60 - 140		
4,4'-DDT	BXF1329-BS1	LCS	0.0045333	0.0050000	mg/kg	90.7		60 - 140		
Dieldrin	BXF1329-BS1	LCS	0.0041303	0.0050000	mg/kg	82.6		70 - 130		
Endrin	BXF1329-BS1	LCS	0.0042733	0.0050000	mg/kg	85.5		60 - 140		
Heptachlor	BXF1329-BS1	LCS	0.0043107	0.0050000	mg/kg	86.2		40 - 140		
TCMX (Surrogate)	BXF1329-BS1	LCS	0.0085373	0.010000	mg/kg	85.4		20 - 140		
Decachlorobiphenyl (Surrogate)	BXF1329-BS1	LCS	0.021506	0.025000	mg/kg	86.0		20 - 140		

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El Dorado Hills, CA 95762

Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

Organochlorine Pesticides (EPA Method 8081B)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BXF1329	Used client sample: N										
Aldrin	MS	1408395-27	ND	0.0037121	0.0050505	mg/kg		73.5		30 - 140	
	MSD	1408395-27	ND	0.0043990	0.0049180	mg/kg	16.9	89.4	30	30 - 140	
gamma-BHC (Lindane)	MS	1408395-27	ND	0.0037667	0.0050505	mg/kg		74.6		30 - 140	
	MSD	1408395-27	ND	0.0050570	0.0049180	mg/kg	29.2	103	30	30 - 140	
4,4'-DDT	MS	1408395-27	ND	0.0039700	0.0050505	mg/kg		78.6		30 - 140	
	MSD	1408395-27	ND	0.0050184	0.0049180	mg/kg	23.3	102	30	30 - 140	
Dieldrin	MS	1408395-27	ND	0.0036808	0.0050505	mg/kg		72.9		40 - 140	
	MSD	1408395-27	ND	0.0044134	0.0049180	mg/kg	18.1	89.7	30	40 - 140	
Endrin	MS	1408395-27	ND	0.0038158	0.0050505	mg/kg		75.6		30 - 150	
	MSD	1408395-27	ND	0.0046551	0.0049180	mg/kg	19.8	94.7	30	30 - 150	
Heptachlor	MS	1408395-27	ND	0.0037764	0.0050505	mg/kg		74.8		70 - 130	
	MSD	1408395-27	ND	0.0045708	0.0049180	mg/kg	19.0	92.9	30	70 - 130	
TCMX (Surrogate)	MS	1408395-27	ND	0.0074226	0.010101	mg/kg		73.5		20 - 140	
	MSD	1408395-27	ND	0.0096656	0.0098361	mg/kg	26.3	98.3		20 - 140	
Decachlorobiphenyl (Surrogate)	MS	1408395-27	ND	0.019358	0.025253	mg/kg		76.7		20 - 140	
	MSD	1408395-27	ND	0.023297	0.024590	mg/kg	18.5	94.7		20 - 140	

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

Quality Control Report - Method Blank Analysis

Constituent	QC Sample ID	MB Result	Units	PQL	MDL	Lab Quals
QC Batch ID: BXF1322						
PCB-1016	BXF1322-BLK1	ND	mg/kg	0.010	0.0027	
PCB-1221	BXF1322-BLK1	ND	mg/kg	0.010	0.0038	
PCB-1232	BXF1322-BLK1	ND	mg/kg	0.010	0.0024	
PCB-1242	BXF1322-BLK1	ND	mg/kg	0.010	0.0040	
PCB-1248	BXF1322-BLK1	ND	mg/kg	0.010	0.0026	
PCB-1254	BXF1322-BLK1	ND	mg/kg	0.010	0.0032	
PCB-1260	BXF1322-BLK1	ND	mg/kg	0.010	0.0016	
Total PCB's (Summation)	BXF1322-BLK1	ND	mg/kg	0.010	0.0050	
Decachlorobiphenyl (Surrogate)	**BXF1322-BLK1**	**110**	%	**50 - 140 (LCL - UCL)**		

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

Quality Control Report - Laboratory Control Sample

Constituent	QC Sample ID	Type	Result	Spike Level	Units	Percent Recovery	RPD	Control Limits Percent Recovery	Control Limits RPD	Lab Quals
QC Batch ID: BXF1322										
PCB-1016	BXF1322-BS1	LCS	0.076174	0.083893	mg/kg	90.8		60 - 130		
PCB-1260	BXF1322-BS1	LCS	0.070805	0.083893	mg/kg	84.4		70 - 130		
Decachlorobiphenyl (Surrogate)	BXF1322-BS1	LCS	0.0067114	0.0067114	mg/kg	100		50 - 140		

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Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

PCB Analysis (EPA Method 8082A)

Quality Control Report - Precision & Accuracy

Constituent	Type	Source Sample ID	Source Result	Result	Spike Added	Units	RPD	Percent Recovery	Control Limits RPD	Control Limits Percent Recovery	Lab Quals
QC Batch ID: BXF1322	Used client sample: N										
PCB-1016	MS	1404104-92	ND	0.084106	0.082781	mg/kg		102		40 - 130	
	MSD	1404104-92	ND	0.079868	0.082508	mg/kg	5.2	96.8	30	40 - 130	
PCB-1260	MS	1404104-92	ND	0.082781	0.082781	mg/kg		100		40 - 130	
	MSD	1404104-92	ND	0.090759	0.082508	mg/kg	9.2	110	30	40 - 130	
Decachlorobiphenyl (Surrogate)	MS	1404104-92	ND	0.0076159	0.0066225	mg/kg		115		50 - 140	
	MSD	1404104-92	ND	0.0072607	0.0066007	mg/kg	4.8	110		50 - 140	

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El Dorado Hills, CA 95762

Reported: 06/19/2014 16:13
Project: 8081
Project Number: [redacted]
Project Manager: Brad Silverbush

Notes And Definitions

MDL	Method Detection Limit
ND	Analyte Not Detected at or above the reporting limit
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
A01	PQL's and MDL's are raised due to sample dilution.
A11	PQL's and/or MDL's were raised due to inadequate sample size received.
A17	Surrogate not reportable due to sample dilution.
A26	Sample received past holding time.

Appendix A.2

Third Party Reported Results
Key to BC Laboratories Report
June 19, 2014

Key to BC Labortories, Inc Report

8489-001-SA LL1 (inside PE office exterior window, clear caulk)

8489-002-SA LL2 (inside PE office exterior window)

8489-005-SA LL5 (PE office inside window)

8489-006-SA JJ1 (room 3, interior window)

8489-011-SA BB5 (dirt room 1)

8489-012-SA KK1 (dirt room 5)

8489-013-SA JJC1 (Juan Cabrillo room 19)

8489-015-SA JJC3 (Juan Cabrillo outside bathroom window grout)

8490-003-SA SS1 (grout outside student store)

8490-004-SA ART (exterior window)

8490-006-SA WW2 (interior door frame caulk)

8490-009-SA AJ1 (room 2 dirt)

Appendix A.3

Third Party Reported Results
Validation Report for BC Laboratories Report
July 3, 2014

Summary of Deficiencies Found in the Data Review:

1. For PCBs:
   - Chain-of-Custody (COC) documentation is missing from 5/10/14 to 6/12/14.
   - Coolers for sample storage were above 6°C at 7.4 and 7.5°C
   - The lab report does not provide any information (e.g., method followed, prep bench sheet) about sample preparation, other than the date.
   - Dilution factors are not listed on the lab report; however, the lab does use a code to indicate the sample was diluted.
   - Calibration information (e.g., calibration curve, initial and continuing calibration checks) was not included with the lab report. Additionally, a run log was not included.
   - The samples that had high detects for PCBs (samples 8489-002-SA LL2, 8489-013-SA, and 8490-006-SA WW2) had 0% surrogate recovery. The lab noted this was due to dilution of the samples, which diluted out the surrogate.
   - The lab indicates that sample "N" was used as the source for the matrix spike, but it is not clear what sample this is. The sample name does not relate to any of the client IDs used.
   - Internal standard information was not provided.
   - Raw data was not provided with the lab report.

2. For Organochlorine Pesticides:
   - COC documentation is missing from 5/10/14 to 6/12/14.
   - Coolers for sample storage were above 6°C at 7.4 and 7.5°C
   - The lab report does not provide any information (e.g., method followed, prep bench sheet) about sample preparation, other than the date.
   - Dilution factors are not listed on the lab report; however, the lab does use a code to indicate the sample was diluted.
   - Holding times were not met for any of the samples; the lab properly qualified these samples indicating the holding time was missed.
   - Calibration information (e.g., calibration curve, initial and continuing calibration checks) was not included with the lab report. Additionally, a run log was not included.
   - The lab indicates that sample "N" was used as the source for the matrix spike, but it is not clear what sample this is. The sample name does not relate to any of the client IDs used.
   - Raw data was not provided with the lab report.

NEPTUNE AND COMPANY, INC.
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MEMORANDUM

To: Kurt Fehling

From: Rebecca Shircliff and Paul Black

Date: July 3, 2014

Subject: Review of laboratory data for PCB and organochlorine pesticide analysis.

A Stage 2B review was performed on PCB and organochlorine pesticide data from BC Laboratories. The deficiencies found for the data are summarized below. In general, these data appear to be usable and valid based on the QC provided; however, it is highly recommended that the laboratory provide the missing information identified below (e.g., calibration, calibration checks, run log, matrix spike source and internal standard information) for a complete evaluation of the quality of the data. In addition, some documentation is needed to explain the 1-month gap between data collection and relinquishment from the Frontier Analytical Laboratories.

Appendix A.4

Third Party Reported Results
Eurofins Calscience Report
August 26, 2014

eurofins | Calscience

WORK ORDER NUMBER: 14-08-1493

The difference is service

AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For
Client: Malibu Unites
Client Project Name: MHS 2014-8
Attention:
22741 Pacific Coast Hwy, Suite 401
Malibu, CA 90265-5876

Approved for release on 08/26/2014 by:
Don Burley
Project Manager

ResultLink >

Email your PM >

ACCREDITED IN ACCORDANCE WITH nelac

eurofins | Calscience

Contents

Client Project Name: MHS 2014-8
Work Order Number: 14-08-1493

eurofins | Calscience

Work Order Narrative

Work Order: 14-08-1493 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 08/20/14. They were assigned to Work Order 14-08-1493.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Malibu Unites	Work Order:	14-08-1493
	22741 Pacific Coast Hwy, Suite 401	Project Name:	MHS 2014-8
	Malibu, CA 90265-5876	PO Number:	
		Date/Time Received:	08/20/14 13:54
		Number of Containers:	6
Attn:			

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
AIR DUCT GUY	14-08-1493-1	08/15/14 17:15	1	Solid
French-MHS	14-08-1493-2	08/15/14 15:35	1	Solid
401-MHS	14-08-1493-3	08/15/14 15:30	1	Solid
505-MHS	14-08-1493-4	08/15/14 15:30	1	Solid
7-MHS	14-08-1493-5	08/15/14 15:35	1	Solid
10-MHS	14-08-1493-6	08/15/14 15:15	1	Solid

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Detections Summary

Client:	Malibu Unites	Work Order:	14-08-1493
	22741 Pacific Coast Hwy, Suite 401	Project Name:	MHS 2014-8
	Malibu, CA 90265-5876	Received:	08/20/14

Attn:

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
AIR DUCT GUY (14-08-1493-1)						
Aroclor-1254	27		15	mg/kg	EPA 8082	EPA 3540C
Aroclor-1260	31		15	mg/kg	EPA 8082	EPA 3540C
Total Aroclors	58			mg/kg		
French-MHS (14-08-1493-2)						
Aroclor-1254	200		22	mg/kg	EPA 8082	EPA 3540C
401-MHS (14-08-1493-3)						
Aroclor-1254	120000		30000	mg/kg	EPA 8082	EPA 3540C
Aroclor-1260	26000		3000	mg/kg	EPA 8082	EPA 3540C
Total Aroclors	146000			mg/kg		
505-MHS (14-08-1493-4)						
Aroclor-1254	180000		18000	mg/kg	EPA 8082	EPA 3540C
Aroclor-1260	51000		18000	mg/kg	EPA 8082	EPA 3540C
Total Aroclors	231000			mg/kg		
7-MHS (14-08-1493-5)						
Aroclor-1254	190		64	mg/kg	EPA 8082	EPA 3540C
10-MHS (14-08-1493-6)						
Aroclor-1254	32		4.2	mg/kg	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

* MDL is shown

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Analytical Report

Malibu Unites		Date Received:	08/20/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-08-1493
Malibu, CA 90265-5876		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	mg/kg
Project: MHS 2014-8			Page 1 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
AIR DUCT GUY	14-08-1493-1-A	08/15/14 17:15	Solid	GC 31	08/21/14	08/24/14 01:54	140821L12A

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	15	10.0	
Aroclor-1221	ND	15	10.0	
Aroclor-1232	ND	15	10.0	
Aroclor-1242	ND	15	10.0	
Aroclor-1248	ND	15	10.0	
Aroclor-1254	27	15	10.0	
Aroclor-1260	31	15	10.0	
Aroclor-1262	ND	15	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	97	24-168	
2,4,5,6-Tetrachloro-m-Xylene	100	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
French-MHS	14-08-1493-2-A	08/15/14 15:35	Solid	GC 31	08/21/14	08/24/14 02:13	140821L12A

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	22	10.0	
Aroclor-1221	ND	22	10.0	
Aroclor-1232	ND	22	10.0	
Aroclor-1242	ND	22	10.0	
Aroclor-1248	ND	22	10.0	
Aroclor-1254	200	22	10.0	
Aroclor-1260	ND	22	10.0	
Aroclor-1262	ND	22	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	105	24-168	
2,4,5,6-Tetrachloro-m-Xylene	111	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Malibu Unites		Date Received:	08/20/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-08-1493
Malibu, CA 90265-5876		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	mg/kg
Project: MHS 2014-8			Page 2 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
401-MHS	14-08-1493-3-A	08/15/14 15:30	Solid	GC 31	08/21/14	08/25/14 15:16	140821L12A

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	30	50.0	
Aroclor-1221	ND	30	50.0	
Aroclor-1232	ND	30	50.0	
Aroclor-1242	ND	30	50.0	
Aroclor-1248	ND	30	50.0	
Aroclor-1262	ND	30	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	252	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	107	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
401-MHS	14-08-1493-3-A	08/15/14 15:30	Solid	GC 31	08/21/14	08/25/14 16:26	140821L12A

Parameter	Result	RL	DF	Qualifiers
Aroclor-1260	26000	3000	5000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	0	24-168	1,2,6
2,4,5,6-Tetrachloro-m-Xylene	0	25-145	1,2,6

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
401-MHS	14-08-1493-3-A	08/15/14 15:30	Solid	GC 31	08/21/14	08/25/14 17:04	140821L12A

Parameter	Result	RL	DF	Qualifiers
Aroclor-1254	120000	30000	50000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	0	24-168	1,2,6
2,4,5,6-Tetrachloro-m-Xylene	0	25-145	1,2,6

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Malibu Unites		Date Received:	08/20/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-08-1493
Malibu, CA 90265-5876		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	mg/kg
Project: MHS 2014-8			Page 3 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
505-MHS	14-08-1493-4-A	08/15/14 15:30	Solid	GC 31	08/21/14	08/25/14 15:35	140821L12A

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	18	50.0	
Aroclor-1221	ND	18	50.0	
Aroclor-1232	ND	18	50.0	
Aroclor-1242	ND	18	50.0	
Aroclor-1248	ND	18	50.0	
Aroclor-1262	ND	18	50.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	798	24-168	1,2,7
2,4,5,6-Tetrachloro-m-Xylene	130	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
505-MHS	14-08-1493-4-A	08/15/14 15:30	Solid	GC 31	08/21/14	08/25/14 17:23	140821L12A

Parameter	Result	RL	DF	Qualifiers
Aroclor-1254	180000	18000	50000	
Aroclor-1260	51000	18000	50000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	0	24-168	1,2,6
2,4,5,6-Tetrachloro-m-Xylene	0	25-145	1,2,6

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Malibu Unites	Date Received:	08/20/14
22741 Pacific Coast Hwy, Suite 401	Work Order:	14-08-1493
Malibu, CA 90265-5876	Preparation:	EPA 3540C
	Method:	EPA 8082
	Units:	mg/kg
Project: MHS 2014-8		Page 4 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
7-MHS	**14-08-1493-5-A**	**08/15/14 15:35**	**Solid**	**GC 31**	**08/21/14**	**08/24/14 03:10**	**140821L12A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	64	100	
Aroclor-1221	ND	64	100	
Aroclor-1232	ND	64	100	
Aroclor-1242	ND	64	100	
Aroclor-1248	ND	64	100	
Aroclor-1254	190	64	100	
Aroclor-1260	ND	64	100	
Aroclor-1262	ND	64	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	146	24-168	
2,4,5,6-Tetrachloro-m-Xylene	131	25-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
10-MHS	**14-08-1493-6-A**	**08/15/14 15:15**	**Solid**	**GC 31**	**08/21/14**	**08/24/14 03:29**	**140821L12A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	4.2	10.0	
Aroclor-1221	ND	4.2	10.0	
Aroclor-1232	ND	4.2	10.0	
Aroclor-1242	ND	4.2	10.0	
Aroclor-1248	ND	4.2	10.0	
Aroclor-1254	32	4.2	10.0	
Aroclor-1260	ND	4.2	10.0	
Aroclor-1262	ND	4.2	10.0	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	112	24-168	
2,4,5,6-Tetrachloro-m-Xylene	108	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Analytical Report

Malibu Unites	Date Received:	08/20/14
22741 Pacific Coast Hwy, Suite 401	Work Order:	14-08-1493
Malibu, CA 90265-5876	Preparation:	EPA 3540C
	Method:	EPA 8082
	Units:	mg/kg
Project: MHS 2014-8		Page 5 of 5

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-535-2819**	**N/A**	**Solid**	**GC 31**	**08/21/14**	**08/23/14 11:46**	**140821L12A**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	0.050	1.00	
Aroclor-1221	ND	0.050	1.00	
Aroclor-1232	ND	0.050	1.00	
Aroclor-1242	ND	0.050	1.00	
Aroclor-1248	ND	0.050	1.00	
Aroclor-1254	ND	0.050	1.00	
Aroclor-1260	ND	0.050	1.00	
Aroclor-1262	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	109	24-168	
2,4,5,6-Tetrachloro-m-Xylene	112	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - Spike/Spike Duplicate

Malibu Unites		Date Received:	08/20/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-08-1493
Malibu, CA 90265-5876		Preparation:	EPA 3540C
		Method:	EPA 8082
Project: MHS 2014-8			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
14-08-1637-3	Sample	Solid	GC 31	08/21/14	08/23/14 19:14	140821S12
14-08-1637-3	Matrix Spike	Solid	GC 31	08/21/14	08/24/14 05:23	140821S12
14-08-1637-3	Matrix Spike Duplicate	Solid	GC 31	08/21/14	08/24/14 05:42	140821S12

Parameter	Sample Conc.	Spike Added	MS Conc.	MS %Rec.	MSD Conc.	MSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	ND	0.1000	0.2558	256	0.2724	272	50-135	6	0-25	3
Aroclor-1260	0.1280	0.1000	0.1530	25	0.1727	45	50-135	12	0-25	3

RPD: Relative Percent Difference. CL: Control Limits

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Quality Control - LCS

Malibu Unites	Date Received:	08/20/14
22741 Pacific Coast Hwy, Suite 401	Work Order:	14-08-1493
Malibu, CA 90265-5876	Preparation:	EPA 3540C
	Method:	EPA 8082
Project: MHS 2014-8		Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS Batch Number
099-12-535-2819	LCS	Solid	GC 31	08/21/14	08/23/14 11:27	140821L12A

Parameter	Spike Added	Conc. Recovered	LCS %Rec.	%Rec. CL	Qualifiers
Aroclor-1016	0.1000	0.1010	101	50-135	
Aroclor-1260	0.1000	0.1052	105	50-135	

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-08-1493 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3540C	669	GC 31	1

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Glossary of Terms and Qualifiers

Work Order: 14-08-1493 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us

CHAIN OF CUSTODY RECORD

WORK ORDER #: **14-08-1493**

DATE: Aug 20, 2014

PAGE: 1 OF 1

LABORATORY CLIENT: Malibu Unites

ADDRESS: 22741 PCH Suite 401

CITY: Malibu STATE: CA ZIP: 90265

TEL: 310.

E-MAIL:

TURNAROUND TIME (Rush surcharges may apply to any TAT not STANDARD)

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

☐ COELT EDF

GLOBAL ID:

LOG CODE:

SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NUMBER: MHS 2014-8

P.O. NO.:

PROJECT MANAGER:

SAMPLER(S): (PRINT)

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB use only	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) ☐ GRO	TPH(d) ☐ DRO	TPH ☐ C6-C35 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6				
1	AIR DUCT GUY	8-15-14	5:15pm	CAULK	1														X						
2	French-MHS	8-15-14	3:35 p	"	1														X						
3	401-MHS	8-15-14	3:30 p		1														+						
4	505-MHS	8-15-14	3:30 p		1														+						
5	7-MHS	8-15-14	3:35 p		1														+						
6	10-MHS	8-15-14	3:15 p		1														+						

Relinquished by: (Signature)	Received by: (Signature/Affiliation) ECI	Date: 8/20/14	Time: 13:54
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:

06/02/14 Revision

1493

UNITED EXPRESS Messengers, Inc.

SERVING ALL OF CALIFORNIA

CENTURY CITY (310) 553-6100
HOLLYWOOD (323) 879-3000
SHERMAN OAKS (818) 786-4444
DOWNTOWN L.A. (213) 486-5000
24 HOURS - 7 DAYS A WEEK

DATE 8/20/14
YOUR FILE OR REF. NO.
SERVICE ORDER NO. 46665

CHARGE TO:	ADDRESS:	ACCOUNT NO.
		3019

PICKUP FROM:	DELIVER TO: Eurofins Calscience
ADDRESS	ADDRESS 7440 Lincoln Way
CITY ZIP	CITY Garden Grove ZIP 92841
SENDER'S NAME EXT. NO DEPT.	RECEIVER'S NAME TEL NO. DEPT.

EXPRESS (IMMEDIATE) ☑	RUSH (2-3 HRS.) ☐	RETURN ☐	OTHER ☐	OVERNIGHT BY 11 AM ☐	BY 3 PM ☐	
COURT FILING ☐	MAIN FILING WINDOW ☐	DEPT. NO.	MAIL BACK CONFIRMED COPY ☐	SERVING ☐	RECORDING ☐	BANK DEPOSIT ☐

NO. PKG.	DESCRIPTION AND SPECIAL INSTRUCTIONS
	Malibu High School (MHS)

SIGNATURE ON RETURN X	DEL. TIME		MESSENGER #	DELIVERY CHARGE
SIGNATURE ON DELIVERY X	DEL. TIME			TOTAL

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WORK ORDER #: 14-08-1493

SAMPLE RECEIPT FORM

Box 1 of 1

CLIENT: Malibu Unites DATE: 08/20/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 24.8 °C - 0.3 °C (CF) = 24.5 °C ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Checked by: 862

CUSTODY SEALS INTACT:

☐ Box ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 862

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 862

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels. (-3) to (-6)			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑ 862 8/20/14	☑	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☑16ozCGJB (+w17)

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: Aa2

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 228

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered Scanned by: 228

SOP T100_090 (08/02/14)

eurofins | Calscience

WORK ORDER #: 14-08-[1][4][9][3]

SAMPLE ANOMALY FORM

SAMPLES - CONTAINERS & LABELS:

Comments:

- ☐ Sample(s) NOT RECEIVED but listed on COC
- ☐ Sample(s) received but NOT LISTED on COC
- ☐ Holding time expired – list sample ID(s) and test
- ☑ Insufficient quantities for analysis – list test — (-1) to (-6)
- ☐ Improper container(s) used – list test
- ☐ Improper preservative used – list test
- ☐ No preservative noted on COC or label – list test & notify lab
- ☐ Sample labels illegible – note test/container type
- ☐ Sample label(s) do not match COC – Note in comments
  - ☐ Sample ID
  - ☐ Date and/or Time Collected
  - ☐ Project Information
  - ☐ # of Container(s)
  - ☐ Analysis
- ☐ Sample container(s) compromised – Note in comments
  - ☐ Water present in sample container
  - ☐ Broken
- ☐ Sample container(s) not labeled
- ☐ Air sample container(s) compromised – Note in comments
  - ☐ Flat
  - ☐ Very low in volume
  - ☐ Leaking (Not transferred - duplicate bag submitted)
  - ☐ Leaking (transferred into Calscience Tedlar® Bag*)
  - ☐ Leaking (transferred into Client's Tedlar® Bag*)
- ☐ Other: _____

HEADSPACE – Containers with Bubble > 6mm or ¼ inch:

Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Vials Received	Sample #	Container ID(s)	# of Cont. received	Analysis

Comments: _____

*Transferred at Client's request.

Initial / Date: AG2 08/20/14

SOP T100_090 (06/02/14)

Appendix A.5

Third Party Reported Results
Key to Eurofins Calscience Report
September 2014

Key to CalScience Results Sept 2014

Air Duct Guy: caulking that was found on cement walkway from a worker dragging his bag of garbage leaving a trail of trash on the walkway to his vehicle parked out front of the Malibu Middle and High School that said " Air Duct Cleaning"

French: MHS room 205: interior door frame
MHS room 401: interior office window frame
MHS room 505: interior door frame on north wall of room
MHS room 7: interior window frame
MHS room 10: interior window frame

Appendix A.6

Third Party Reported Results
Frontier Analytical Laboratory Report Sample ID WW2
October 2, 2014

FRONTIER
ANALYTICAL LABORATORY

NELAP ACCREDITED TNI LABORATORY

October 2, 2014

Ms. Jennifer DeNicola
Malibu Unites
22741 Pacific Coast Highway, Suite 401
Malibu, CA 90265

Dear Ms. DeNicola,

The following results are for Frontier Analytical Laboratory project **8490**. This corresponds to your Malibu Unites project. Eleven of the twelve solid samples listed on the chain of custody were received on 5/13/2014. All eleven samples were placed on hold per your instructions. On 6/9/2014 you requested we sub-contract out several samples to be analyzed following EPA Method 8082. This was completed on 6/19/2014. Eventually you requested we analyze sample 8490-006-SA (Malibu Unites ID: WW2) for total PCB concentration using Modified EPA Method 1668C for all 209 PCB congeners. This was completed in August 2014 and concentrations were communicated to you. After numerous discussions you requested we go back and determine the concentration levels of PCB-126 in the sample.

Please note the following for your data sheets. The method blank and sample results are reported in ng/g (ppb). Our Modified EPA Method 1668C has a reporting limit (RL) of 25.0 ppb for each of the 209 PCB congeners. This reporting limit ensures that if all 209 PCB congeners are below the RL, cumulatively they are well below the action levels noted in the Toxic Substance Control Act (TSCA) of 50.0 ppm. Due to high levels of PCBs your sample had to be diluted and quantitated using an external standard. Therefore a true internal standard and cleanup surrogate recovery value is not available, hence the "X" and "*" qualifiers.

The following report consists of an Analytical Data section and a Sample Receipt section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of custody, our sample login form and sample photos. The attached results are specifically for the sample referenced in this report only. This report has been emailed to you as a PDF file. A hardcopy will not be sent to you unless specifically requested.

If you have any questions regarding project **8490**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

This report and all analytical work have been provided to you as a "gesture in kind" with no associated invoice or cost to you.

Sincerely,

Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **8490**

Received on: **05/13/2014** Project Due: **06/05/2014** Storage: **F2**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
8490-001-SA	0	Malibu Unites	TT1	EPA 1668 PCB	Solid	05/10/2014	11:00 am	05/10/2015
8490-002-SA	0	Malibu Unites	TT2	EPA 1668 PCB	Solid	05/10/2014	11:15 am	05/10/2015
8490-003-SA	0	Malibu Unites	SS1	EPA 1668 PCB	Solid	05/10/2014	11:25 am	05/10/2015
8490-004-SA	0	Malibu Unites	ART	EPA 1668 PCB	Solid	05/10/2014	11:30 am	05/10/2015
8490-005-SA	0	Malibu Unites	WW1	EPA 1668 PCB	Solid	05/10/2014	11:40 am	05/10/2015
8490-006-SA	0	Malibu Unites	WW2	EPA 1668 PCB	Solid	05/10/2014	11:45 am	05/10/2015
8490-007-SA	0	Malibu Unites	TT3	EPA 1668 PCB	Solid	05/10/2014	11:30 am	05/10/2015
8490-008-SA	0	Malibu Unites	RMG	EPA 1668 PCB	Solid	05/10/2014	12:00 pm	05/10/2015
8490-009-SA	0	Malibu Unites	AJ1	EPA 1668 PCB	Solid	05/12/2014	07:45 am	05/12/2015
8490-010-SA	0	Malibu Unites	AJ2	EPA 1668 PCB	Solid	05/12/2014	07:50 am	05/12/2015
8490-011-SA	0	Malibu Unites	Ceiling Bulk - TT	EPA 1668 PCB	Solid	NP	NP	N/A
8490-012-SA	0	Malibu Unites	Paint - TT	EPA 1668 PCB	Solid	NP	NP	N/A

FAL Sample ID	Notes
8490-005-SA	'Sample not received.'
8490-006-SA	Using sample ID from COC for our tracking purposes.
8490-009-SA	'Using hand written sampling date from jar label for our tracking purposes. '
8490-010-SA	'Using hand written sampling date from jar label for our tracking purposes. '

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Modified EPA Method 1668C
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 8490-001-MB
Client ID: Method Blank
Matrix: Solid
Batch No: X3149

Date Extracted: 08-05-2014
Date Received: NA
Amount: 2.00 g

ICal: LRPCBFAL4-7-10-14
GC Column: DB1
Units: ng/g

Acquired: 08-06-2014
WHO TEQ: NA
Basis: Dry Weight

Compound	Conc	RL	Qual
PCB-126	ND	25.0	

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-126	80.9	15.0 - 145	

Cleanup Surrogate			
13C-PCB-178	109	15.0 - 145	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 10/2/2014

Reviewed By: _____

Date: 10/2/2014

Modified EPA Method 1668C
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 8490-001-OPR
Client ID: OPR
Matrix: Solid
Batch No: X3149

Date Extracted: 08-05-2014
Date Received: NA
Amount: 2.00 g

ICal: LRPCBFAL4-7-10-14
GC Column: DB1
Units: ng/ml

Acquired: 08-06-2014
WHO TEQ: NA

Compound	Conc	QC Limits
PCB-126	434	200 - 600

Internal Standards	% Rec	QC Limits
13C-PCB-126	82.7	15.0 - 145

Cleanup Surrogate		
13C-PCB-178	99.0	15.0 - 145

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 10/2/2014

Reviewed By: _____
Date: 10/2/2014

Modified EPA Method 1668C
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 8490-006-SA
Client ID: WW2
Matrix: Solid
Batch No: X3149

Date Extracted: 08-05-2014
Date Received: 05-13-2014
Amount: 0.10 g

ICal: LRPCBFAL4-7-10-14
GC Column: DB1
Units: ng/g

Acquired: 08-07-2014
WHO TEQ: NA
Basis: Dry Weight

Compound	Conc	RL	Qual
PCB-126	57,600	25.0	

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-126	NA	15.0 - 145	X,*

Cleanup Surrogate			
13C-PCB-178	NA	15.0 - 145	X,*

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 10/2/2014

Reviewed By: _____
Date: 10/2/2014

Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762
Tel: 916-934-0900
Fax: 916-934-0999

FAL USE ONLY
Laboratory Project No.: 8490
Temperature: 0 °C

Chain of Custody

www.frontieranalytical.com

Please Print in Pen **Page____ of____**

CLIENT INFORMATION	**INVOICE INFORMATION** (if different from client info)	**PROJECT INFORMATION**
Company Name: MU	Company Name:	FAL Quote #:
Contact Name: Jen	Contact Name:	P.O. #:
Address: 22741 PCH	Address:	Project #:
Phone: 310 848 5400 Fax:	Phone: Fax:	Project Name:
Email: JRN@malibauniteS.com	Email:	TAT (business days): ☒ 15 ☐ 10 ☐ 5* ☐ 3* (√ one)
		* FAL must agree with price and RUSH TAT in writing.

REPORT INFORMATION	**REPORT DISTRIBUTION** (email only is preferred)	**ADDITIONAL INSTRUCTIONS**
Report Level: ☐ I/II ☐ III ☐ IV	☐ Hardcopy	
☐ EDD: ☐ FAL Basic ☐ Geotracker ☐ Other: ☐ Custom: Contact FAL	☐ CD (.pdf including EDDs if requested)	
	☒ Email (.pdf including EDDs if requested)	

☐ California State Drinking Water Form
System #: Source #:
Sampler: Employer:

	Sample ID	Date Collected	Time	Matrix	# of containers	EPA 1613**	EPA 8290**	DLM 02.0	EPA 8280**	Appendix IX	EPA TO-9/9A	EPA 23/23A	EPA 1668	FAL 15	Other	Remarks
1	TT1	5.10.14	11:04		8											Vent - wipe - blw Kit & GR
2	TT2	5.10.14	11:15		1											Caulk - maint theater
3	SS1	5.10.14	11:25		1											Caulk -
4	ART	5-10-14	11:30		1											Caulk
5	WW1	5.10.14	11:40		missing											- Carpet Sample
6	WW2	5-10-14	11:45		1											- caulk
7	TT3	5-10-14	11:30		1											- window glaze
8	RMG	5-10-14	12-		1											wall vent dirt
9	AJ1	5.10.14	7:45		1				5/12							wall vent soil
10	AJ2	5.10.14	7:50		1				5/12							wall vent DUST/WIPE
11	Ceiling Bulk - TT															
12	paint - TT															
13																
14																
15																

CONGENERS	**TEQ**
☐ 2,3,7,8-TCDD only	☐ 1998 WHO
☐ 2,3,7,8-TCDD/F only	☐ 2005 WHO
☐ PCDD/F (Cl_4-Cl_8)	☐ Other

Samples will be disposed of 90 days after sample receipt unless other arrangements have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	**Date**	**Time**	**Received by:** (Signature and Printed Name)	**Date**	**Time**
			[signature] 1C2PP 000006 of 000006	5-13-14	920

Client understands that all terms described in the proposals, quotations, and/or the general terms provided in the current FAL price schedules will be followed.
FAL reserves the rights to terminate its service or withhold delivery of reports, if in FAL's sole discretion the terms of the project have been broken.

White Copy – Report Yellow Copy – Laboratory Pink Copy - Originator

ED_002022B_00026808-00089

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **8490**

Client:	Malibu Unites
Client Project ID:	Malibu Unites
Date Received:	05/13/2014
Time Received:	09:20 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	12
Duplicates:	0
Storage Location:	F2

Method of Delivery:	California Overnight
Tracking Number:	D10010681069063
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	No
Test aqueous sample for residual Chlorine	No
Sodium Thiosulfate Added	No
Adequate Sample Volume	Yes
Appropriate Sample Container	Yes
pH Range of Aqueous Sample	N/A
Anomalies or additional comments:	

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Appendix A.7

Third Party Reported Results
Frontier Analytical Laboratory Report Sample ID JJC1
October 2, 2014

FRONTIER
ANALYTICAL LABORATORY

NELAP ACCREDITED TNI LABORATORY

October 2, 2014

Ms. Jennifer DeNicola
Malibu Unites
22741 Pacific Coast Highway, Suite 401
Malibu, CA 90265

Dear Ms. DeNicola,

The following results are for Frontier Analytical Laboratory project **8489**. This corresponds to your Malibu Unites project. Fifteen solid samples were received on 5/13/2014. All fifteen samples were placed on hold per your instructions. On 6/9/2014 you requested we sub-contract out several samples to be analyzed following EPA Method 8082. This was completed on 6/19/2014. Eventually you requested we analyze sample 8489-013-SA (Malibu Unites ID: JJC1) for total PCB concentration using Modified EPA Method 1668C for all 209 PCB congeners. This was completed in August 2014 and concentrations were communicated to you. After numerous discussions you requested we go back and determine the concentration levels of PCB-126 in the sample.

Please note the following for your data sheets. The method blank and sample results are reported in ng/g (ppb). Our Modified EPA Method 1668C has a reporting limit (RL) of 25.0 ppb for each of the 209 PCB congeners. This reporting limit ensures that if all 209 PCB congeners are below the RL, cumulatively they are well below the action levels noted in the Toxic Substance Control Act (TSCA) of 50.0 ppm. Due to high levels of PCBs your sample had to be diluted and quantitated using an external standard. Therefore a true internal standard and cleanup surrogate recovery value is not available, hence the "X" and "*" qualifiers.

The following report consists of an Analytical Data section and a Sample Receipt section. The Analytical Data section contains our project-sample tracking log and the analytical results. The Sample Receipt section contains your chain of custody, our sample login form and a sample photo. The attached results are specifically for the sample referenced in this report only. This report has been emailed to you as a PDF file. A hardcopy will not be sent to you unless specifically requested.

If you have any questions regarding project **8489**, please feel free to contact me at (916) 934-0900. Thank you for choosing Frontier Analytical Laboratory for your analytical testing needs.

This report and all analytical work have been provided to you as a "gesture in kind" with no associated invoice or cost to you.

Sincerely,

Bradley B. Silverbush
Director of Operations

Frontier Analytical Laboratory

Sample Tracking Log

FAL Project ID: **8489**

Received on: **05/13/2014** Project Due: **06/05/2014** Storage: **R2**

FAL Sample ID	Dup	Client Project ID	Client Sample ID	Requested Method	Matrix	Sampling Date	Sampling Time	Hold Time Due Date
8489-001-SA	0	Malibu Unites	LL1	EPA 1668 PCB	Solid	05/10/2014	07:50 am	05/10/2015
8489-002-SA	0	Malibu Unites	LL2	EPA 1668 PCB	Solid	05/10/2014	07:50 am	05/10/2015
8489-003-SA	0	Malibu Unites	LL3	EPA 1668 PCB	Solid	05/10/2014	08:00 am	05/10/2015
8489-004-SA	0	Malibu Unites	LL4	EPA 1668 PCB	Solid	05/10/2014	08:15 am	05/10/2015
8489-005-SA	0	Malibu Unites	LL5	EPA 1668 PCB	Solid	05/10/2014	08:17 am	05/10/2015
8489-006-SA	0	Malibu Unites	JJ1	EPA 1668 PCB	Solid	05/10/2014	08:45 am	05/10/2015
8489-007-SA	0	Malibu Unites	BB1	EPA 1668 PCB	Solid	05/10/2014	09:05 am	05/10/2015
8489-008-SA	0	Malibu Unites	BB2	EPA 1668 PCB	Solid	05/10/2014	09:05 am	05/10/2015
8489-009-SA	0	Malibu Unites	BB3	EPA 1668 PCB	Solid	05/10/2014	09:05 am	05/10/2015
8489-010-SA	0	Malibu Unites	BB4	EPA 1668 PCB	Solid	05/10/2014	09:10 am	05/10/2015
8489-011-SA	0	Malibu Unites	BB5	EPA 1668 PCB	Solid	05/10/2014	09:38 am	05/10/2015
8489-012-SA	0	Malibu Unites	KK1	EPA 1668 PCB	Solid	05/10/2014	09:54 am	05/10/2015
8489-013-SA	0	Malibu Unites	JJC1	EPA 1668 PCB	Solid	05/10/2014	10:20 am	05/10/2015
8489-014-SA	0	Malibu Unites	JJC2	EPA 1668 PCB	Solid	05/10/2014	10:30 am	05/10/2015
8489-015-SA	0	Malibu Unites	JJC3	EPA 1668 PCB	Solid	05/10/2014	10:35 am	05/10/2015

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Modified EPA Method 1668C
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 8489-001-MB
Client ID: Method Blank
Matrix: Solid
Batch No: X3149

Date Extracted: 08-05-2014
Date Received: NA
Amount: 2.00 g

ICal: LRPCBFAL4-7-10-14
GC Column: DB1
Units: ng/g

Acquired: 08-06-2014
WHO TEQ: NA
Basis: Dry Weight

Compound	Conc	RL	Qual
PCB-126	ND	25.0	

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-126	80.9	15.0 - 145	

Cleanup Surrogate			
13C-PCB-178	109	15.0 - 145	

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____

Date: 10/2/2014

Reviewed By: _____

Date: 10/2/2014

Modified EPA Method 1668C
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 8489-001-OPR
Client ID: OPR
Matrix: Solid
Batch No: X3149

Date Extracted: 08-05-2014
Date Received: NA
Amount: 2.00 g

ICal: LRPCBFAL4-7-10-14
GC Column: DB1
Units: ng/ml

Acquired: 08-06-2014
WHO TEQ: NA

Compound	Conc	QC Limits
PCB-126	434	200 - 600

Internal Standards	% Rec	QC Limits
13C-PCB-126	82.7	15.0 - 145

Cleanup Surrogate		
13C-PCB-178	99.0	15.0 - 145

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 10/1/2014

Reviewed By: _____
Date: 10/1/2014

Modified EPA Method 1668C
PCBs

FRONTIER ANALYTICAL LABORATORY

FAL ID: 8489-013-SA
Client ID: JJC1
Matrix: Solid
Batch No: X3149

Date Extracted: 08-05-2014
Date Received: 05-13-2014
Amount: 0.11 g

ICal: LRPCBFAL4-7-10-14
GC Column: DB1
Units: ng/g

Acquired: 08-07-2014
WHO TEQ: NA
Basis: Dry Weight

Compound	Conc	RL	Qual
PCB-126	122,000	25.0	

Internal Standards	% Rec	QC Limits	Qual
13C-PCB-126	NA	15.0 - 145	X,*

Cleanup Surrogate			
13C-PCB-178	NA	15.0 - 145	X,*

A	Isotopic Labeled Standard outside QC range but signal to noise ratio is >10:1
B	Analyte is present in Method Blank
C	Chemical Interference
D	Presence of Diphenyl Ethers
DNQ	Analyte concentration is below calibration range
E	Analyte concentration is above calibration range
F	Analyte confirmation on secondary column
J	Analyte concentration is below calibration range
M	Maximum possible concentration
ND	Analyte Not Detected at Detection Limit Level
NP	Not Provided
P	Pre-filtered through a Whatman 0.7um GF/F filter
S	Sample acceptance criteria not met
X	Matrix interferences
*	Result taken from dilution or reinjection

Analyst: _____
Date: 10/2/2014

Reviewed By: _____
Date: 10/2/2014

Frontier Analytical Laboratory
5172 Hillsdale Circle
El Dorado Hills, CA 95762
Tel: 916-934-0900
Fax: 916-934-0999

FAL USE ONLY
Laboratory Project No.: 8489
Temperature: 0 °C

Chain of Custody

www.frontieranalytical.com

Please Print in Pen **Page____ of____**

CLIENT INFORMATION	**INVOICE INFORMATION** (if different from client info)	**PROJECT INFORMATION**
Company Name: MU	Company Name:	FAL Quote #:
Contact Name: Jen	Contact Name:	P.O. #:
Address: 22741 Pch, Malibu CA 90265	Address:	Project #:
Phone: 310 848 5400 Fax:	Phone: Fax:	Project Name:
Email: Jen@malibuunited.com	Email:	TAT (business days): ☒ 15 ☐ 10 ☐ 5* ☐ 3* (√ one)
		* FAL must agree with price and RUSH TAT in writing.

REPORT INFORMATION	**REPORT DISTRIBUTION** (email only is preferred)	**ADDITIONAL INSTRUCTIONS**
Report Level: ☐ I/II ☐ III ☐ IV	☐ Hardcopy	
☐ EDD: ☐ FAL Basic ☐ Geotracker ☐ Other: ____ ☐ Custom: Contact FAL	☐ CD (.pdf including EDDs if requested)	
	☒ Email (.pdf including EDDs if requested)	

☐ California State Drinking Water Form
System #: Source #:
Sampler: Employer:

	Sample ID	Date Collected	Time	Matrix	# of containers	EPA 1613**	EPA 8290**	DLM 02.0	EPA 8280**	Appendix IX	EPA TO-9/9A	EPA 23/23A	EPA 1668	FAL 15	Other	**CONGENERS: ☐ 2,3,7,8-TCDD only ☐ 2,3,7,8-TCDD/F only ☐ PCDD/F (Cl_4-Cl_8) **TEQ: ☐ 1998 WHO ☐ 2005 WHO ☐ Other	Remarks
1	LL1	5.10	7:50		1												Caulk
2	LL2	5-10	7:50		1												Caulk
3	LL3	5-10	8 AM		1												Dirt / Dust
4	LL4	5-10	8:15		1												Wipe Dust
5	LL5	5-10	8:17		1												CAULK
6	JJ1	5-10-14	8:45a		1												CAULK
7	BB1	5.10.14	9:05		1												Felt - Vent
8	BB2	5.10.14	9:05		1												Vent - wipe
9	BB3	5.10.14	9:08		1												Wipe - inside cab trench
10	BB4	5.10.14	9:10		1												Wipe - under sink - trench
11	BB5	5.10.14	9:38		1												Soil - in wall vent
12	KK1	5.10.14	9:54		1												Soil - in wall vent
13	JJC1	5.10.14	10:20		1												Caulk - 1
14	JJC2	5.10.14	10:30		1												Caulk bathroom
15	JJC3	5.10.14	10:35		1												Caulk - outside bathroom

Samples will be disposed of 90 days after sample receipt unless other arrangements have been made and agreed upon in writing.

Relinquished by: (Signature and Printed Name)	Date	Time	**Received by:** (Signature and Printed Name)	Date	Time
			Kathy Saso / FedEx 000005 of 000008	5/13/14	920

Client understands that all terms described in the proposals, quotations, and/or the general terms provided in the current FAL price schedules will be followed.
FAL reserves the rights to terminate its service or withhold delivery of reports, if in FAL's sole discretion the terms of the project have been broken.

White Copy – Report Yellow Copy – Laboratory Pink Copy - Originator

Frontier Analytical Laboratory

Sample Login Form

FAL Project ID: **8489**

Client:	Malibu Unites
Client Project ID:	Malibu Unites
Date Received:	05/13/2014
Time Received:	09:20 am
Received By:	KZ
Logged In By:	KZ
# of Samples Received:	15
Duplicates:	0
Storage Location:	R2

Method of Delivery:	California Overnight
Tracking Number:	D10010681069063
Shipping Container Received Intact	Yes
Custody seals(s) present?	Yes
Custody seals(s) intact?	Yes
Sample Arrival Temperature (C)	0
Cooling Method	Ice
Chain Of Custody Present?	Yes
Return Shipping Container To Client	Yes
Test aqueous sample for residual Chlorine	No
Sodium Thiosulfate Added	No
Adequate Sample Volume	Yes
Appropriate Sample Container	Yes
pH Range of Aqueous Sample	N/A
Anomalies or additional comments:	

5172 Hillsdale Circle * El Dorado Hills, CA 95762 * Tel (916) 934-0900 * Fax (916) 934-0999 * www.frontieranalytical.com

5172 Hillsdale Circle * El Dorado Hills, CA 95762 * Tel (916) 934-0900 * Fax (916) 934-0999 * www.frontieranalytical.com

Appendix A.8

Third Party Reported Results
Eurofins Calscience Report Sample ID MH3
October 8, 2014

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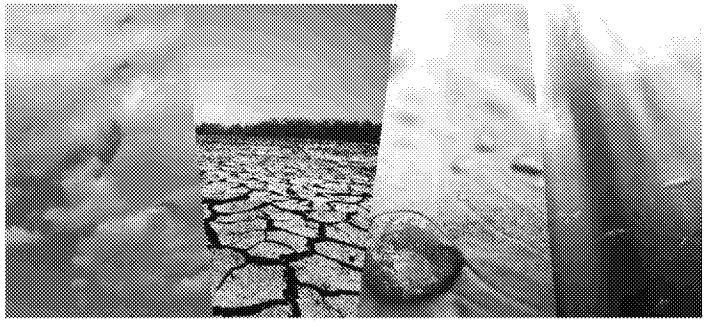
WORK ORDER NUMBER: 14-09-2329

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Malibu Unites

Client Project Name: M.H. 3

Attention: Jennifer deNicola
22741 Pacific Coast Hwy, Suite 401
Malibu, CA 90265-5876

Approved for release on 10/08/2014 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Contents

Client Project Name: M.H. 3
Work Order Number: 14-09-2329

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Work Order Narrative

Work Order: 14-09-2329 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/30/14. They were assigned to Work Order 14-09-2329.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Malibu Unites	Work Order:	14-09-2329
	22741 Pacific Coast Hwy, Suite 401	Project Name:	M.H. 3
	Malibu, CA 90265-5876	PO Number:	
		Date/Time Received:	09/30/14 10:10
		Number of Containers:	1
Attn:	Jennifer deNicola		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MH3	14-09-2329-1	09/23/14 15:37	1	Solid

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Detections Summary

Client:	Malibu Unites	Work Order:	14-09-2329
	22741 Pacific Coast Hwy, Suite 401	Project Name:	M.H. 3
	Malibu, CA 90265-5876	Received:	09/30/14
Attn:	Jennifer deNicola		Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MH3 (14-09-2329-1)						
Aroclor-1254	330		33	mg/kg	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Malibu Unites
22741 Pacific Coast Hwy, Suite 401
Malibu, CA 90265-5876

Date Received: 09/30/14
Work Order: 14-09-2329
Preparation: EPA 3540C
Method: EPA 8082
Units: mg/kg

Project: M.H. 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MH3	**14-09-2329-1-A**	**09/23/14 15:37**	**Solid**	**GC 31**	**10/01/14**	**10/07/14 10:42**	**141001L29**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	33	100	
Aroclor-1221	ND	33	100	
Aroclor-1232	ND	33	100	
Aroclor-1242	ND	33	100	
Aroclor-1248	ND	33	100	
Aroclor-1254	330	33	100	
Aroclor-1260	ND	33	100	
Aroclor-1262	ND	33	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	118	24-168	
2,4,5,6-Tetrachloro-m-Xylene	134	25-145	

Method Blank	099-12-535-2890	N/A	Solid	GC 31	10/01/14	10/06/14 16:57	141001L29

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	0.050	1.00	
Aroclor-1221	ND	0.050	1.00	
Aroclor-1232	ND	0.050	1.00	
Aroclor-1242	ND	0.050	1.00	
Aroclor-1248	ND	0.050	1.00	
Aroclor-1254	ND	0.050	1.00	
Aroclor-1260	ND	0.050	1.00	
Aroclor-1262	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	24-168	
2,4,5,6-Tetrachloro-m-Xylene	119	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

Malibu Unites	Date Received: 09/30/14
22741 Pacific Coast Hwy, Suite 401	Work Order: 14-09-2329
Malibu, CA 90265-5876	Preparation: EPA 3540C
	Method: EPA 8082
Project: M.H. 3	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-535-2890	**LCS**	**Solid**	**GC 31**	**10/01/14**	**10/06/14 16:19**	**141001L29**
099-12-535-2890	**LCSD**	**Solid**	**GC 31**	**10/01/14**	**10/06/14 16:38**	**141001L29**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	0.1000	0.1330	133	0.1333	133	50-135	0	0-20	
Aroclor-1260	0.1000	0.1342	134	0.1349	135	50-135	1	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-09-2329 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3540C	669	GC 31	1

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Glossary of Terms and Qualifiers

Work Order: 14-09-2329 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **14-09-2329**

DATE: SEPT. 29, 2014
PAGE: 1 OF 1

LABORATORY CLIENT: MALIBU SCHOOLS
ADDRESS: 22741 PCH #401
CITY: MALIBU STATE: CA ZIP: 90265
TEL: 310-456-6000 E-MAIL: ADMIN@MALIBUUNITES.COM
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ STANDARD
EDD:
☐ COELT EDF ☐ OTHER
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NO.: M.H.3
PROJECT CONTACT:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: DON
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT)

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6				
①	MH3	9/23	3:37		1														X						

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: 9/29/14	Time: 1:33
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation)	Date: 9/30/14	Time: 1010

2014-07-01 Revision

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9/29/2014 FedEx Ship Manager - Print Your Label(s)

From: (310) 848-5400
Jennifer deNicola

22741 Pacific Coast Hwy. Suite

Malibu, CA 90265

Origin ID: CIBA

FedEx Express

J14221409230Suv

Ship Date: 29SEP14
ActWgt:
CAD: 107061989/INET3550

Delivery Address Bar Code

SHIP TO: (714) 895-5494 BILL SENDER

Eurofins

7440 Lincoln Way

GARDEN GROVE, CA 92841

Ref #
Invoice #
PO #
Dept #

TUE - 30 SEP AA
STANDARD OVERNIGHT

TRK# 7713 1883 9405
0201

92841
CA-US
SNA

WZ APVA

522G1/DF64/8AC9

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system cons[illegible] agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for [illegible] of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless [illegible] additional charge, document your actual loss and file a timely claim. Limitations found in the current [illegible] from FedEx for any loss, including intrinsic value of the package, loss of sales, income [illegible] damage whether direct, incidental, consequential, or special is limited to the [illegible] actual documented loss. Maximum for items of extraordinary [illegible] listed in our ServiceGuide. Written claims must [illegible]

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WORK ORDER #: 14-09-2329

SAMPLE RECEIPT FORM

Envelope ~~Cooler~~ 1 of 1
836 9/30/14

CLIENT: Malibu Sch. DATE: 09/30/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 22.9 °C - 0.3 °C (CF) = 22.6 °C ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 836

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 836

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 836

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☐	☑	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☑Z_____

Aqueous: ☐VOA ☐VOAh ☐VOA**na**$_2$ ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na**$_2$ ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na**$_2$ ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 836

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope Reviewed by: 300

Preservative: **h:** HCL **n:** HNO_3 **na**$_2$:$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered Scanned by: 300

Appendix A.9

Third Party Reported Results
Eurofins Calscience Report Sample ID MH704
October 8, 2014

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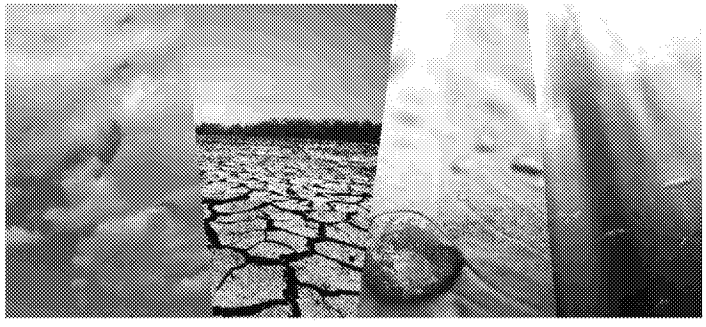
WORK ORDER NUMBER: 14-09-2338

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Malibu Unites

Client Project Name: M.H.S. 704

Attention: Jennifer deNicola
22741 Pacific Coast Hwy, Suite 401
Malibu, CA 90265-5876

Approved for release on 10/08/2014 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

nelac

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Contents

Client Project Name: M.H.S. 704
Work Order Number: 14-09-2338

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Work Order Narrative

Work Order: 14-09-2338 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 09/30/14. They were assigned to Work Order 14-09-2338.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Malibu Unites	Work Order:	14-09-2338
	22741 Pacific Coast Hwy, Suite 401	Project Name:	M.H.S. 704
	Malibu, CA 90265-5876	PO Number:	
		Date/Time Received:	09/30/14 10:10
		Number of Containers:	1
Attn:	Jennifer deNicola		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
MH704	14-09-2338-1	09/23/14 15:31	1	Solid

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Detections Summary

Client:	Malibu Unites	Work Order:	14-09-2338
	22741 Pacific Coast Hwy, Suite 401	Project Name:	M.H.S. 704
	Malibu, CA 90265-5876	Received:	09/30/14
Attn:	Jennifer deNicola		Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
MH704 (14-09-2338-1)						
Aroclor-1254	4700		360	mg/kg	EPA 8082	EPA 3540C

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Malibu Unites		Date Received:	09/30/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-09-2338
Malibu, CA 90265-5876		Preparation:	EPA 3540C
		Method:	EPA 8082
		Units:	mg/kg
Project: M.H.S. 704			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MH704	**14-09-2338-1-A**	**09/23/14 15:31**	**Solid**	**GC 31**	**10/01/14**	**10/07/14 13:53**	**141001L29**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	360	1000	
Aroclor-1221	ND	360	1000	
Aroclor-1232	ND	360	1000	
Aroclor-1242	ND	360	1000	
Aroclor-1248	ND	360	1000	
Aroclor-1254	4700	360	1000	
Aroclor-1260	ND	360	1000	
Aroclor-1262	ND	360	1000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	150	24-168	
2,4,5,6-Tetrachloro-m-Xylene	140	25-145	

Method Blank	099-12-535-2890	N/A	Solid	GC 31	10/01/14	10/06/14 16:57	141001L29

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	0.050	1.00	
Aroclor-1221	ND	0.050	1.00	
Aroclor-1232	ND	0.050	1.00	
Aroclor-1242	ND	0.050	1.00	
Aroclor-1248	ND	0.050	1.00	
Aroclor-1254	ND	0.050	1.00	
Aroclor-1260	ND	0.050	1.00	
Aroclor-1262	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	111	24-168	
2,4,5,6-Tetrachloro-m-Xylene	119	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

Malibu Unites	Date Received: 09/30/14
22741 Pacific Coast Hwy, Suite 401	Work Order: 14-09-2338
Malibu, CA 90265-5876	Preparation: EPA 3540C
	Method: EPA 8082
Project: M.H.S. 704	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-535-2890	**LCS**	**Solid**	**GC 31**	**10/01/14**	**10/06/14 16:19**	**141001L29**
099-12-535-2890	**LCSD**	**Solid**	**GC 31**	**10/01/14**	**10/06/14 16:38**	**141001L29**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	0.1000	0.1330	133	0.1333	133	50-135	0	0-20	
Aroclor-1260	0.1000	0.1342	134	0.1349	135	50-135	1	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-09-2338 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3540C	669	GC 31	1

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Glossary of Terms and Qualifiers

Work Order: 14-09-2338 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN-OF-CUSTODY RECORD

WO NO. / LAB USE ONLY: **14-09-2338**

DATE: SEPT. 29, 2014
PAGE: 1 OF 1

LABORATORY CLIENT: MALIBU SCHOOLS
ADDRESS: 22741 PCH #401
CITY: MALIBU STATE: CA ZIP: 90265
TEL: 310-436-6000 E-MAIL: ADMIN@MALIBUUNITES.COM
TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAYS ☐ STANDARD
EDD:
☐ COELT EDF ☐ OTHER
SPECIAL INSTRUCTIONS:

CLIENT PROJECT NAME / NO.: M.H.S. 704
PROJECT CONTACT:
P.O. NO.:
LAB CONTACT OR QUOTE NO.: DON
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT)

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6				
(1)	MH704	9/23/14	3:31		1														X							

Relinquished by: (Signature) C Uyl	Received by: (Signature/Affiliation)	Date: 9/29/14	Time: 12:50
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (FedEx)	Received by: (Signature/Affiliation)	Date: 9/30/14	Time: 1010

2014-07-01 Revision

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9/29/2014 FedEx Ship Manager - Print Your Label(s)

From: (310) 848-5400
Jennifer deNicola

22741 Pacific Coast Hwy. Suite

Malibu, CA 90265

Origin ID: CIBA

FedEx Express

J142214092303uv

Ship Date: 29SEP14
ActWgt:
CAD: 107061989/INET3550

Delivery Address Bar Code

SHIP TO: (714) 895-5494

BILL SENDER

Eurofins

7440 Lincoln Way

GARDEN GROVE, CA 92841

Ref #
Invoice #
PO #
Dept #

TUE - 30 SEP AA
STANDARD OVERNIGHT

TRK# 7713 1883 9405
0201

92841
CA-US
SNA

WZ APVA

522G1/DF64/8AC9

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written

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WORK ORDER #: 14-09-2 3 3 8

SAMPLE RECEIPT FORM

Envelope ~~Cooler~~ 1 of 1
8% 9/30/14

CLIENT: Malibu Sch. DATE: 09/30/14

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 22.9 °C - 0.3 °C (CF) = 22.6 °C ☐ Blank ☒ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 836

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☒ Not Present ☐ N/A Checked by: 836

☐ Sample ☐_____ ☐ No (Not Intact) ☐ Not Present Checked by: 836

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☐	☐	☐
COC document(s) received complete	☐	☒	☐
☒ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☐	☒	☐
Sample container label(s) consistent with COC	☐	☐	☐
Sample container(s) intact and good condition	☐	☐	☐
Proper containers and sufficient volume for analyses requested	☐	☒	☐
Analyses received within holding time	☐	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☐
Proper preservation noted on COC or sample container	☐	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☐

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☒Z_____

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 836

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 681

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered Scanned by: 681

Appendix A.10

Third Party Reported Results
Eurofins Calscience Report Sample ID JC OFFICE
December 5, 2014

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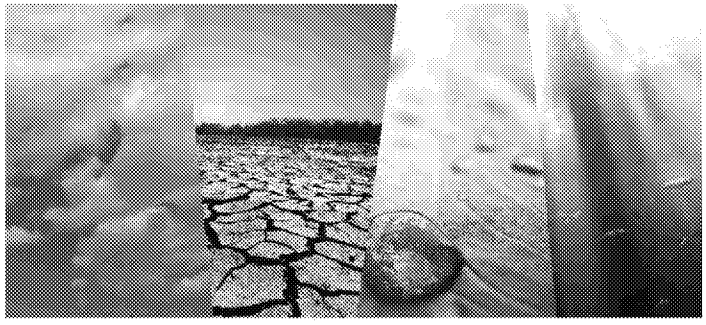
WORK ORDER NUMBER: 14-11-2194

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Malibu Unites

Client Project Name: JC Office

Attention: Jennifer deNicola
22741 Pacific Coast Hwy, Suite 401
Malibu, CA 90265-5876

Approved for release on 12/05/2014 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

nelac

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Contents

Client Project Name: JC Office
Work Order Number: 14-11-2194

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Work Order Narrative

Work Order: 14-11-2194 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/28/14. They were assigned to Work Order 14-11-2194.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Malibu Unites	Work Order:	14-11-2194
	22741 Pacific Coast Hwy, Suite 401	Project Name:	JC Office
	Malibu, CA 90265-5876	PO Number:	
		Date/Time Received:	11/28/14 09:20
		Number of Containers:	1
Attn:	Jennifer deNicola		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
JC Office	14-11-2194-1	11/20/14 16:00	1	Solid

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Detections Summary

Client:	Malibu Unites	Work Order:	14-11-2194
	22741 Pacific Coast Hwy, Suite 401	Project Name:	JC Office
	Malibu, CA 90265-5876	Received:	11/28/14
Attn:	Jennifer deNicola		Page 1 of 1

Client SampleID / Analyte	Result	Qualifiers	RL	Units	Method	Extraction
JC Office (14-11-2194-1)						
Aroclor-1254	710		260	mg/kg	EPA 8082	EPA 3550B

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Malibu Unites		Date Received:	11/28/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-11-2194
Malibu, CA 90265-5876		Preparation:	EPA 3550B
		Method:	EPA 8082
		Units:	mg/kg
Project: JC Office			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
JC Office	**14-11-2194-1-A**	**11/20/14 16:00**	**Solid**	**GC 31**	**12/02/14**	**12/05/14 13:40**	**141202L06**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	260	100	
Aroclor-1221	ND	260	100	
Aroclor-1232	ND	260	100	
Aroclor-1242	ND	260	100	
Aroclor-1248	ND	260	100	
Aroclor-1254	710	260	100	
Aroclor-1260	ND	260	100	
Aroclor-1262	ND	260	100	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	120	24-168	
2,4,5,6-Tetrachloro-m-Xylene	89	25-145	

Method Blank	099-12-535-2968	N/A	Solid	GC 58	12/02/14	12/05/14 10:53	141202L06

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	0.050	1.00	
Aroclor-1221	ND	0.050	1.00	
Aroclor-1232	ND	0.050	1.00	
Aroclor-1242	ND	0.050	1.00	
Aroclor-1248	ND	0.050	1.00	
Aroclor-1254	ND	0.050	1.00	
Aroclor-1260	ND	0.050	1.00	
Aroclor-1262	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

Malibu Unites	Date Received: 11/28/14
22741 Pacific Coast Hwy, Suite 401	Work Order: 14-11-2194
Malibu, CA 90265-5876	Preparation: EPA 3550B
	Method: EPA 8082
Project: JC Office	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-535-2968	**LCS**	**Solid**	**GC 58**	**12/02/14**	**12/05/14 10:17**	**141202L06**
099-12-535-2968	**LCSD**	**Solid**	**GC 58**	**12/02/14**	**12/05/14 10:35**	**141202L06**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	0.1000	0.09831	98	0.09121	91	50-135	7	0-20	
Aroclor-1260	0.1000	0.1011	101	0.09159	92	50-135	10	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-11-2194 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3550B	669	GC 31	1

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Glossary of Terms and Qualifiers

Work Order: 14-11-2194 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN-OF-CUSTODY RECORD

DATE: 11/24/14
PAGE: 5 OF 6

WO NO. / LAB USE ONLY
14-11-2194

LABORATORY CLIENT: Malibu Unites
ADDRESS: 22741 PCH #401
CITY: Malibu STATE: CA ZIP: 90265
TEL: 310.436.6000 E-MAIL: jen@malibuunites.com

CLIENT PROJECT NAME / NO.: ~~MU201~~ > Office
PROJECT CONTACT: JEN DENICOLA
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.:
SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES
Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	TPH(g) ☐ GRO	TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6				
	~~LAB (OUT OF BOX WORK)~~																								
1	JC Office	11/20/14	4PM																✓						

Relinquished by: (Signature)
Relinquished by: (Signature)
Relinquished by: (Signature) (Fedex)

Received by: (Signature/Affiliation)
Received by: (Signature/Affiliation)
Received by: (Signature/Affiliation) EGY

Date: / Time:
Date: / Time:
Date: 11/28/14 Time: 0920

2014-07-01 Revision

Return to Contents

From: (310) 848-5400
Jennifer deNicola

22741 Pacific Coast Hwy. Suite

Malibu, CA 90265

Origin ID: CIBA

FedEx Express

J142214092303uv

Ship Date: 25NOV14
ActWgt: 1.0 LB
CAD: 107061989/INET3550

2194

Delivery Address Bar Code

SHIP TO: (714) 895-5494

BILL SENDER

Don Burley
Eurofins
7440 Lincoln Way

GARDEN GROVE, CA 92841

Ref # Test JC
Invoice #
PO #
Dept #

RELEASE#: 3785346

FRI - 28 NOV 10:30A
MORNING 2DAY

TRK# 0201 7719 9433 8664

92841
CA-US
SNA

SH APVA

522G1616/8AC9

Return Shipping Label

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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WORK ORDER #: 14-11-2194

SAMPLE RECEIPT FORM

Envelope ~~Cooler~~ 1 of 1

CLIENT: Malibu Unites

DATE: 11/28/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 21.9 °C - 0.2 °C (CF) = 21.7 °C ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Checked by: 836

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 836

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 300

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☑ Not relinquished. ☑ No date/time relinquished.			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☐	☑	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☑Z

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 300

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 836

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered Scanned by: 300

Appendix A.11

Third Party Reported Results
Eurofins Calscience Report Sample ID JC18
December 5, 2014

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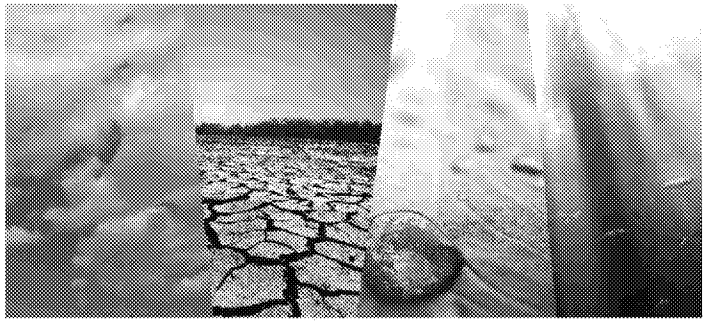
WORK ORDER NUMBER: 14-11-2196

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Malibu Unites

Client Project Name: JC18

Attention: Jennifer deNicola
22741 Pacific Coast Hwy, Suite 401
Malibu, CA 90265-5876

Approved for release on 12/05/2014 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

nelac

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Contents

Client Project Name: JC18
Work Order Number: 14-11-2196

eurofins | Calscience

Work Order Narrative

Work Order: 14-11-2196 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/28/14. They were assigned to Work Order 14-11-2196.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Malibu Unites	Work Order:	14-11-2196
	22741 Pacific Coast Hwy, Suite 401	Project Name:	JC18
	Malibu, CA 90265-5876	PO Number:	
		Date/Time Received:	11/28/14 09:20
		Number of Containers:	1
Attn:	Jennifer deNicola		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
JC18	14-11-2196-1	11/20/14 16:00	1	Solid

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Detections Summary

Client:	Malibu Unites	Work Order:	14-11-2196
	22741 Pacific Coast Hwy, Suite 401	Project Name:	JC18
	Malibu, CA 90265-5876	Received:	11/28/14
Attn:	Jennifer deNicola		Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
JC18 (14-11-2196-1)						
Aroclor-1254	110000		34000	mg/kg	EPA 8082	EPA 3550B

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Malibu Unites		Date Received:	11/28/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-11-2196
Malibu, CA 90265-5876		Preparation:	EPA 3550B
		Method:	EPA 8082
		Units:	mg/kg
Project: JC18			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
JC18	**14-11-2196-1-A**	**11/20/14 16:00**	**Solid**	**GC 31**	**12/02/14**	**12/05/14 16:13**	**141202L06**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	34000	50000	
Aroclor-1221	ND	34000	50000	
Aroclor-1232	ND	34000	50000	
Aroclor-1242	ND	34000	50000	
Aroclor-1248	ND	34000	50000	
Aroclor-1254	110000	34000	50000	
Aroclor-1260	ND	34000	50000	
Aroclor-1262	ND	34000	50000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	0	24-168	1,2,6
2,4,5,6-Tetrachloro-m-Xylene	0	25-145	1,2,6

Method Blank	099-12-535-2968	N/A	Solid	GC 58	12/02/14	12/05/14 10:53	141202L06

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	0.050	1.00	
Aroclor-1221	ND	0.050	1.00	
Aroclor-1232	ND	0.050	1.00	
Aroclor-1242	ND	0.050	1.00	
Aroclor-1248	ND	0.050	1.00	
Aroclor-1254	ND	0.050	1.00	
Aroclor-1260	ND	0.050	1.00	
Aroclor-1262	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

Malibu Unites		Date Received:	11/28/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-11-2196
Malibu, CA 90265-5876		Preparation:	EPA 3550B
		Method:	EPA 8082
Project: JC18			Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-535-2968	**LCS**	**Solid**	**GC 58**	**12/02/14**	**12/05/14 10:17**	**141202L06**
099-12-535-2968	**LCSD**	**Solid**	**GC 58**	**12/02/14**	**12/05/14 10:35**	**141202L06**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	0.1000	0.09831	98	0.09121	91	50-135	7	0-20	
Aroclor-1260	0.1000	0.1011	101	0.09159	92	50-135	10	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-11-2196 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3550B	669	GC 31	1

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Glossary of Terms and Qualifiers

Work Order: 14-11-2196 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494
For courier service / sample drop off information, contact us26_sales@eurofinsus.com or call us.

CHAIN-OF-CUSTODY RECORD

DATE: 11/24/14
PAGE: 5 OF ~~7~~

WO NO. / LAB USE ONLY
14-11-2196

LABORATORY CLIENT: Malibu Unites
ADDRESS: 22741 PCH #401
CITY: Malibu STATE: CA ZIP: 90265
TEL: 310.436.6000 E-MAIL: Jen@malibuunites.com

CLIENT PROJECT NAME / NO.: ~~MU201~~ JC 18
P.O. NO.:
PROJECT CONTACT: JEN DENICOLA
LAB CONTACT OR QUOTE NO.:
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES

Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6				
	~~CAB #18~~																								
1	JC 18	11/~~20~~/14	4pm																✓						

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Talex)	Received by: (Signature/Affiliation) EQ	Date: 11/28/14	Time: 0920

2014-07-01 Revision

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From: (310) 848-5400
Jennifer deNicola

22741 Pacific Coast Hwy. Suite

Malibu, CA 90265

Origin ID: CIBA

FedEx Express

J142214092303uv

Ship Date: 25NOV14
ActWgt: 1.0 LB
CAD: 107061989/INET3550

2196

Delivery Address Bar Code

Ref # Test JC
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494

BILL SENDER

Don Burley
Eurofins
7440 Lincoln Way

GARDEN GROVE, CA 92841

RELEASE#: 3785346

FRI - 28 NOV 10:30A
MORNING 2DAY

TRK# 7719 9433 8664
0201

92841
CA-US
SNA

SH APVA

522G1/B1BC/8A03

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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WORK ORDER #: 14-11-2196

SAMPLE RECEIPT FORM

Envelope ~~Cooler~~ 1 of 1 RM 11/28/14

CLIENT: Malibu Unites DATE: 11/28/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 21.9 °C - 0.2 °C (CF) = 21.7 °C ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Checked by: 836

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 836

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: 30

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☑ Not relinquished. ☑ No date/time relinquished.			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☐	☑	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☑Z

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: 30

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: 836

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered Scanned by: 30

Appendix A.12

Third Party Reported Results
Eurofins Calscience Report Sample ID JC22
December 5, 2014

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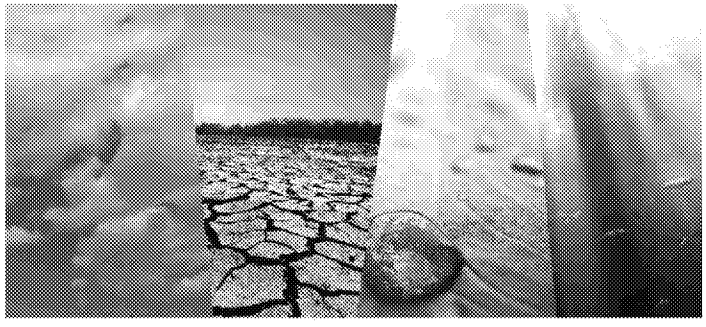
WORK ORDER NUMBER: 14-11-2197

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Malibu Unites

Client Project Name: JC22

Attention: Jennifer deNicola
22741 Pacific Coast Hwy, Suite 401
Malibu, CA 90265-5876

Approved for release on 12/05/2014 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

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Contents

Client Project Name: JC22
Work Order Number: 14-11-2197

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Work Order Narrative

Work Order: 14-11-2197 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/28/14. They were assigned to Work Order 14-11-2197.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Malibu Unites	Work Order:	14-11-2197
	22741 Pacific Coast Hwy, Suite 401	Project Name:	JC22
	Malibu, CA 90265-5876	PO Number:	
		Date/Time Received:	11/28/14 09:20
		Number of Containers:	1
Attn:	Jennifer deNicola		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
JC22	14-11-2197-1	11/20/14 16:00	1	Solid

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Detections Summary

Client:	Malibu Unites	Work Order:	14-11-2197
	22741 Pacific Coast Hwy, Suite 401	Project Name:	JC22
	Malibu, CA 90265-5876	Received:	11/28/14
Attn:	Jennifer deNicola		Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
JC22 (14-11-2197-1)						
Aroclor-1254	74000		11000	mg/kg	EPA 8082	EPA 3550B

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Malibu Unites		Date Received:	11/28/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-11-2197
Malibu, CA 90265-5876		Preparation:	EPA 3550B
		Method:	EPA 8082
		Units:	mg/kg
Project: JC22			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
JC22	**14-11-2197-1-A**	**11/20/14 16:00**	**Solid**	**GC 31**	**12/02/14**	**12/05/14 16:32**	**141202L06**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	11000	50000	
Aroclor-1221	ND	11000	50000	
Aroclor-1232	ND	11000	50000	
Aroclor-1242	ND	11000	50000	
Aroclor-1248	ND	11000	50000	
Aroclor-1254	74000	11000	50000	
Aroclor-1260	ND	11000	50000	
Aroclor-1262	ND	11000	50000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	0	24-168	1,2,6
2,4,5,6-Tetrachloro-m-Xylene	0	25-145	1,2,6

Method Blank	099-12-535-2968	N/A	Solid	GC 58	12/02/14	12/05/14 10:53	141202L06

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	0.050	1.00	
Aroclor-1221	ND	0.050	1.00	
Aroclor-1232	ND	0.050	1.00	
Aroclor-1242	ND	0.050	1.00	
Aroclor-1248	ND	0.050	1.00	
Aroclor-1254	ND	0.050	1.00	
Aroclor-1260	ND	0.050	1.00	
Aroclor-1262	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

Malibu Unites	Date Received: 11/28/14
22741 Pacific Coast Hwy, Suite 401	Work Order: 14-11-2197
Malibu, CA 90265-5876	Preparation: EPA 3550B
	Method: EPA 8082
Project: JC22	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-535-2968	**LCS**	**Solid**	**GC 58**	**12/02/14**	**12/05/14 10:17**	**141202L06**
099-12-535-2968	**LCSD**	**Solid**	**GC 58**	**12/02/14**	**12/05/14 10:35**	**141202L06**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	0.1000	0.09831	98	0.09121	91	50-135	7	0-20	
Aroclor-1260	0.1000	0.1011	101	0.09159	92	50-135	10	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-11-2197 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3550B	669	GC 31	1

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Glossary of Terms and Qualifiers

Work Order: 14-11-2197 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN-OF-CUSTODY RECORD

DATE: 11/24/14
PAGE: 1 OF 2

WO NO. / LAB USE ONLY
14-11-2197

LABORATORY CLIENT: Malibu Unites
ADDRESS: 22741 PCH #401
CITY: Malibu STATE: CA ZIP: 90265
TEL: 310.436.6000 E-MAIL: Jen@malibuunites.com

CLIENT PROJECT NAME / NO.: ~~Mu201~~ JC22
PROJECT CONTACT: JEN DeNICOLA
GLOBAL ID:
LOG CODE:
P.O. NO.:
LAB CONTACT OR QUOTE NO.:
SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES
Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6				
	~~CAB 1122~~																		✓						
1	JC22	11/20/14	4pm																✓						

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date:	Time:
Relinquished by: (Signature) (Telex)	Received by: (Signature/Affiliation) EG	Date: 11/28/14	Time: 0920

2014-07-01 Revision

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From: (310) 848-5400
Jennifer deNicola

22741 Pacific Coast Hwy. Suite

Malibu, CA 90265

Origin ID: CIBA

FedEx Express

J142214092303uv

Ship Date: 25NOV14
ActWgt: 1.0 LB
CAD: 107061989/INET3550

2197

Delivery Address Bar Code

Ref # Test JC
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494

BILL SENDER

Don Burley
Eurofins
7440 Lincoln Way

GARDEN GROVE, CA 92841

RELEASE#: 3785346

FRI - 28 NOV 10:30A
MORNING 2DAY

TRK# 7719 9433 8664
0201

92841
CA-US
SNA

SH APVA

522G1/6160/8A09

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

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WORK ORDER #: 14-11-2197

SAMPLE RECEIPT FORM

Envelope ~~Cooler~~ 1 of 1 sm 11/28/14

CLIENT: Malibu Unites DATE: 11/28/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 21.9 °C - 0.2 °C (CF) = 21.7 °C ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Checked by: 836

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A Checked by: 836

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present Checked by: JW

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☑ Not relinquished. ☑ No date/time relinquished.			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☐	☑	☐
Analyses received within holding time	☑	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☑Z

Aqueous: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐1PBna ☐500PB ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ Labeled/Checked by: JW

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: JW

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 u: Ultra-pure znna: $ZnAc_2$+NaOH f: Filtered Scanned by: JW

Appendix A.13

Third Party Reported Results
Eurofins Calscience Report Sample ID JC23
December 5, 2014

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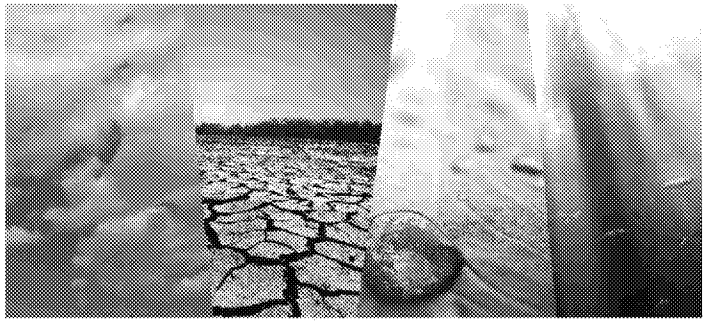
WORK ORDER NUMBER: 14-11-2199

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Malibu Unites

Client Project Name: JC23

Attention: Jennifer deNicola
22741 Pacific Coast Hwy, Suite 401
Malibu, CA 90265-5876

Approved for release on 12/05/2014 by:
Don Burley
Project Manager

ResultLink ▸

Email your PM ▸

nelac

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Contents

Client Project Name: JC23
Work Order Number: 14-11-2199

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Work Order Narrative

Work Order: 14-11-2199 Page 1 of 1

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 11/28/14. They were assigned to Work Order 14-11-2199.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

New York NELAP air certification does not certify for all reported methods and analytes, reference the accredited items here: http://www.calscience.com/PDF/New_York.pdf

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

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Sample Summary

Client:	Malibu Unites	Work Order:	14-11-2199
	22741 Pacific Coast Hwy, Suite 401	Project Name:	JC23
	Malibu, CA 90265-5876	PO Number:	
		Date/Time Received:	11/28/14 09:20
		Number of Containers:	1
Attn:	Jennifer deNicola		

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
JC23	14-11-2199-1	11/20/14 16:00	1	Solid

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Detections Summary

Client:	Malibu Unites	Work Order:	14-11-2199
	22741 Pacific Coast Hwy, Suite 401	Project Name:	JC23
	Malibu, CA 90265-5876	Received:	11/28/14
Attn:	Jennifer deNicola		Page 1 of 1

Client SampleID

Analyte	Result	Qualifiers	RL	Units	Method	Extraction
JC23 (14-11-2199-1)						
Aroclor-1254	85000		17000	mg/kg	EPA 8082	EPA 3550B

Subcontracted analyses, if any, are not included in this summary.

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* MDL is shown

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Analytical Report

Malibu Unites		Date Received:	11/28/14
22741 Pacific Coast Hwy, Suite 401		Work Order:	14-11-2199
Malibu, CA 90265-5876		Preparation:	EPA 3550B
		Method:	EPA 8082
		Units:	mg/kg
Project: JC23			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
JC23	**14-11-2199-1-A**	**11/20/14 16:00**	**Solid**	**GC 31**	**12/02/14**	**12/05/14 16:51**	**141202L06**

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	17000	50000	
Aroclor-1221	ND	17000	50000	
Aroclor-1232	ND	17000	50000	
Aroclor-1242	ND	17000	50000	
Aroclor-1248	ND	17000	50000	
Aroclor-1254	85000	17000	50000	
Aroclor-1260	ND	17000	50000	
Aroclor-1262	ND	17000	50000	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	0	24-168	1,2,6
2,4,5,6-Tetrachloro-m-Xylene	0	25-145	1,2,6

Method Blank	099-12-535-2968	N/A	Solid	GC 58	12/02/14	12/05/14 10:53	141202L06

Parameter	Result	RL	DF	Qualifiers
Aroclor-1016	ND	0.050	1.00	
Aroclor-1221	ND	0.050	1.00	
Aroclor-1232	ND	0.050	1.00	
Aroclor-1242	ND	0.050	1.00	
Aroclor-1248	ND	0.050	1.00	
Aroclor-1254	ND	0.050	1.00	
Aroclor-1260	ND	0.050	1.00	
Aroclor-1262	ND	0.050	1.00	

Surrogate	Rec. (%)	Control Limits	Qualifiers
Decachlorobiphenyl	87	24-168	
2,4,5,6-Tetrachloro-m-Xylene	84	25-145	

RL: Reporting Limit. DF: Dilution Factor. MDL: Method Detection Limit.

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Quality Control - LCS/LCSD

Malibu Unites	Date Received: 11/28/14
22741 Pacific Coast Hwy, Suite 401	Work Order: 14-11-2199
Malibu, CA 90265-5876	Preparation: EPA 3550B
	Method: EPA 8082
Project: JC23	Page 1 of 1

Quality Control Sample ID	Type	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-535-2968	**LCS**	**Solid**	**GC 58**	**12/02/14**	**12/05/14 10:17**	**141202L06**
099-12-535-2968	**LCSD**	**Solid**	**GC 58**	**12/02/14**	**12/05/14 10:35**	**141202L06**

Parameter	Spike Added	LCS Conc.	LCS %Rec.	LCSD Conc.	LCSD %Rec.	%Rec. CL	RPD	RPD CL	Qualifiers
Aroclor-1016	0.1000	0.09831	98	0.09121	91	50-135	7	0-20	
Aroclor-1260	0.1000	0.1011	101	0.09159	92	50-135	10	0-25	

RPD: Relative Percent Difference. CL: Control Limits

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Sample Analysis Summary Report

Work Order: 14-11-2199 Page 1 of 1

Method	Extraction	Chemist ID	Instrument	Analytical Location
EPA 8082	EPA 3550B	669	GC 31	1

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Glossary of Terms and Qualifiers

Work Order: 14-11-2199 Page 1 of 1

Qualifiers	Definition
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution. Therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to suspected matrix interference. The associated LCS recovery was in control.
4	The MS/MSD RPD was out of control due to suspected matrix interference.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
6	Surrogate recovery below the acceptance limit.
7	Surrogate recovery above the acceptance limit.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
HD	The chromatographic pattern was inconsistent with the profile of the reference fuel standard.
HDH	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but heavier hydrocarbons were also present (or detected).
HDL	The sample chromatographic pattern for TPH matches the chromatographic pattern of the specified standard but lighter hydrocarbons were also present (or detected).
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
ME	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
SG	The sample extract was subjected to Silica Gel treatment prior to analysis.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

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CHAIN-OF-CUSTODY RECORD

DATE: 11/28/14
PAGE: 1 OF 2

WO NO. / LAB USE ONLY
14-11-2199

LABORATORY CLIENT: Malibu Unites
ADDRESS: 22741 PCH #401
CITY: Malibu STATE: CA ZIP: 90265
TEL: 310.436.6000 E-MAIL: Jen@malibuunites.com

CLIENT PROJECT NAME / NO.: ~~MU201~~ JC23
P.O. NO.:
PROJECT CONTACT: JEN DE NICOLA
LAB CONTACT OR QUOTE NO.:
GLOBAL ID:
LOG CODE:
SAMPLER(S): (PRINT)

TURNAROUND TIME (Rush surcharges may apply to any TAT not "STANDARD"):
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ STANDARD

EDD:
☐ COELT EDF ☐ OTHER

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSES
Please check box or fill in blank as needed.

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	Unpreserved	Preserved	Field Filtered	☐ TPH(g) ☐ GRO	☐ TPH(d) ☐ DRO	TPH ☐ C6-C36 ☐ C6-C44	TPH ____	BTEX / MTBE ☐ 8260 ☐ ____	VOCs (8260)	Oxygenates (8260)	Prep (5035) ☐ En Core ☐ Terra Core	SVOCs (8270)	Pesticides (8081)	PCBs (8082)	PAHs ☐ 8270 ☐ 8270 SIM	T22 Metals ☐ 6010/747X ☐ 6020/747X	Cr(VI) ☐ 7196 ☐ 7199 ☐ 218.6				
	CAB #23																		✓						
1	JC23	10/30/14	4PM																✓						

Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: / Time:
Relinquished by: (Signature)	Received by: (Signature/Affiliation)	Date: / Time:
Relinquished by: (Signature) (Fedex)	Received by: (Signature/Affiliation) EU	Date: 11/28/14 Time: 0920

2014-07-01 Revision

Return to Contents

From: (310) 848-5400
Jennifer deNicola

22741 Pacific Coast Hwy. Suite

Malibu, CA 90265

Origin ID: CIBA

FedEx Express

J142214092303uv

Ship Date: 25NOV14
ActWgt: 1.0 LB
CAD: 107061989/INET3550

2199

Delivery Address Bar Code

Ref # Test JC
Invoice #
PO #
Dept #

SHIP TO: (714) 895-5494 BILL SENDER

Don Burley
Eurofins
7440 Lincoln Way

GARDEN GROVE, CA 92841

RELEASE#: 3785346

FRI - 28 NOV 10:30A
MORNING 2DAY

TRK# 0201 **7719 9433 8664**

92841
CA-US
SNA

SH APVA

522G1/616C/8AC9

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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eurofins | Calscience

WORK ORDER #: 14-11-2195

SAMPLE RECEIPT FORM

Envelope ~~Cooler~~ 1 of 1

RM 11/28/14

CLIENT: Malibu Unites

DATE: 11/28/14

TEMPERATURE: Thermometer ID: SC2 (Criteria: 0.0 °C – 6.0 °C, not frozen except sediment/tissue)

Temperature 21.9 °C - 0.2 °C (CF) = 21.7 °C ☐ Blank ☑ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter **Checked by:** 836

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Checked by:** 836

☐ Sample ☐_____ ☐ No (Not Intact) ☐ Not Present **Checked by:** _____

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☐	☐	☐
COC document(s) received complete	☐	☑	☐
☑ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☑ Not relinquished. ☑ No date/time relinquished.			
Sampler's name indicated on COC	☐	☑	☐
Sample container label(s) consistent with COC	☐	☐	☐
Sample container(s) intact and good condition	☐	☐	☐
Proper containers and sufficient volume for analyses requested	☐	☑	☐
Analyses received within holding time	☐	☐	☐
Aqueous samples received within 15-minute holding time			
☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfides ☐ Dissolved Oxygen	☐	☐	☐
Proper preservation noted on COC or sample container	☐	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☐

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☑ Z

Aqueous: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐1PB**na** ☐500PB ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Canister **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** _____

Container: **C:** Clear **A:** Amber **P:** Plastic **G:** Glass **J:** Jar **B:** Bottle **Z:** Ziploc/Resealable Bag **E:** Envelope **Reviewed by:** _____

Preservative: **h:** HCL **n:** HNO_3 **na$_2$:**$Na_2S_2O_3$ **na:** NaOH **p:** H_3PO_4 **s:** H_2SO_4 **u:** Ultra-pure **znna:** $ZnAc_2$+NaOH **f:** Filtered **Scanned by:**_____

Attachment B

Laboratory Analytical Reports and Data Validation for ENVIRON's Bulk Sampling of MHS and JCES

ENVIRON

Laboratory Report #1503051 (Bulk)

Sample Date: February 28, 2015
MHS and JCES

ALS Environmental

10-Mar-2015

Doug Daugherty
ENVIRON International Corp
18100 VonKarman Ave.
Suite 600
Irvine, CA 92612

Re: **MHS/JCES (0433980P)** Work Order: **1503051**

Dear Doug, Revision: **1**

ALS Environmental received 24 samples on 03-Mar-2015 08:15 AM for the analyses presented in the following report.

This is a REVISED REPORT. The Case Narrative provides information discussing the reason for issuing a revised report. The total number of pages in this revision is 38.

If you have any questions regarding these test results, please feel free to contact me.

Sincerely,

Chad Whelton

Electronically approved by: Chad Whelton

Chad Whelton
Project Manager

NELAP ACCREDITED TNI LABORATORY

Certificate No: MN 532786

Report of Laboratory Analysis

ALS Group USA, Corp

Date: 10-Mar-15

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P)
Work Order: **1503051**

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
1503051-01	022815-JCES-BF-R18-L1-C1	Solid		2/28/2015 08:00	3/3/2015 08:15	☐
1503051-02	022815-JCES-BF-R18-L1-C2	Solid		2/28/2015 08:00	3/3/2015 08:15	☐
1503051-03	022815-JCES-BF-R18-L2-C1	Solid		2/28/2015 08:00	3/3/2015 08:15	☐
1503051-04	022815-JCES-BF-R19-L1-C1	Solid		2/28/2015 09:30	3/3/2015 08:15	☐
1503051-05	022815-JCES-BF-R19-L1-C2	Solid		2/28/2015 09:30	3/3/2015 08:15	☐
1503051-06	022815-JCES-BF-R19-L2-C1	Solid		2/28/2015 09:30	3/3/2015 08:15	☐
1503051-07	022815-JCES-BF-R23-L1-C1	Solid		2/28/2015 11:00	3/3/2015 08:15	☐
1503051-08	022815-JCES-BF-R23-L1-C2	Solid		2/28/2015 11:00	3/3/2015 08:15	☐
1503051-09	022815-JCES-BF-R23-L2-C1	Solid		2/28/2015 11:00	3/3/2015 08:15	☐
1503051-10	022815-JCES-BF-R23-L3-C1	Solid		2/28/2015 11:00	3/3/2015 08:15	☐
1503051-11	022815-JCES-BF-R22-L6-C1	Solid		2/28/2015 12:00	3/3/2015 08:15	☐
1503051-12	022815-JCES-BF-R22-L6-C2	Solid		2/28/2015 12:00	3/3/2015 08:15	☐
1503051-13	022815-JCES-BF-R22-L7-C1	Solid		2/28/2015 12:00	3/3/2015 08:15	☐
1503051-14	022815-JCES-BF-R22-L7-C2	Solid		2/28/2015 12:00	3/3/2015 08:15	☐
1503051-15	022815-MHS-B000-R7-L1-C1	Solid		2/28/2015 13:15	3/3/2015 08:15	☐
1503051-16	022815-MHS-B000-R7-L2-C1	Solid		2/28/2015 13:15	3/3/2015 08:15	☐
1503051-17	022815-MHS-B000-R3-L4-C1	Solid		2/28/2015 14:30	3/3/2015 08:15	☐
1503051-18	022815-MHS-B000-R3-L10-C1	Solid		2/28/2015 14:30	3/3/2015 08:15	☐
1503051-19	022815-MHS-B400-R401-L1-C1	Solid		2/28/2015 15:15	3/3/2015 08:15	☐
1503051-20	022815-MHS-B500-R505-L1-C1	Solid		2/28/2015 16:00	3/3/2015 08:15	☐
1503051-21	022815-MHS-B700-R704Hall-L1-C1	Solid		2/28/2015 16:45	3/3/2015 08:15	☐
1503051-22	022815-MHS-B700-R704-L5-C1	Solid		2/28/2015 17:30	3/3/2015 08:15	☐
1503051-23	022815-MHS-B700-R704-L5-C2	Solid		2/28/2015 18:20	3/3/2015 08:15	☐
1503051-24	022815-MHS-B700-R704-L2-C1	Solid		2/28/2015 18:20	3/3/2015 08:15	☐

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P)
Work Order: 1503051

Case Narrative

All surrogate recoveries in the samples are unavailable due to dilution below the calibration range. The matrix spikes are also unavailable due to dilution below the calibration range.

The concentrations in the Method Blanks were greater than the quantitation limit for Aroclor 1254. The sample concentrations were greater than 5x the concentrations in the Method Blanks; therefore, no qualification is required.

Revised report sent 3/10/15 due to a client requested unit conversion from ug/Kg to mg/Kg.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P)
WorkOrder: 1503051

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and PQL, sample results may exhibit background or reagent contamination at the observed level.

Acronym	Description
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

Units Reported	Description
% of sample	Percent of Sample
mg/Kg	Milligrams per Kilogram
mg/Kg-dry	Milligrams per Kilogram Dry Weight

ALS Group USA, Corp

Date: *10-Mar-15*

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R18-L1-C1 **Lab ID:** 1503051-01
Collection Date: 2/28/2015 08:00 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		4,700	mg/Kg	1E+05	3/6/2015 08:22 PM
Aroclor 1221	ND		4,700	mg/Kg	1E+05	3/6/2015 08:22 PM
Aroclor 1232	ND		4,700	mg/Kg	1E+05	3/6/2015 08:22 PM
Aroclor 1242	ND		4,700	mg/Kg	1E+05	3/6/2015 08:22 PM
Aroclor 1248	ND		4,700	mg/Kg	1E+05	3/6/2015 08:22 PM
Aroclor 1254	**290,000**	B	**4,700**	**mg/Kg**	1E+05	3/6/2015 08:22 PM
Aroclor 1260	ND		4,700	mg/Kg	1E+05	3/6/2015 08:22 PM
Aroclor 1262	ND		4,700	mg/Kg	1E+05	3/6/2015 08:22 PM
Aroclor 1268	ND		4,700	mg/Kg	1E+05	3/6/2015 08:22 PM
PCBs, Total	**290,000**			**mg/Kg**	1E+05	3/6/2015 08:22 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 08:22 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 08:22 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R18-L1-C2 **Lab ID:** 1503051-02
Collection Date: 2/28/2015 08:00 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		4,800	mg/Kg	1E+05	3/6/2015 08:39 PM
Aroclor 1221	ND		4,800	mg/Kg	1E+05	3/6/2015 08:39 PM
Aroclor 1232	ND		4,800	mg/Kg	1E+05	3/6/2015 08:39 PM
Aroclor 1242	ND		4,800	mg/Kg	1E+05	3/6/2015 08:39 PM
Aroclor 1248	ND		4,800	mg/Kg	1E+05	3/6/2015 08:39 PM
Aroclor 1254	**270,000**	B	**4,800**	**mg/Kg**	1E+05	3/6/2015 08:39 PM
Aroclor 1260	ND		4,800	mg/Kg	1E+05	3/6/2015 08:39 PM
Aroclor 1262	ND		4,800	mg/Kg	1E+05	3/6/2015 08:39 PM
Aroclor 1268	ND		4,800	mg/Kg	1E+05	3/6/2015 08:39 PM
PCBs, Total	**270,000**			**mg/Kg**	1E+05	3/6/2015 08:39 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 08:39 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 08:39 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R18-L2-C1 **Lab ID:** 1503051-03
Collection Date: 2/28/2015 08:00 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		3,000	mg/Kg	1E+05	3/6/2015 08:56 PM
Aroclor 1221	ND		3,000	mg/Kg	1E+05	3/6/2015 08:56 PM
Aroclor 1232	ND		3,000	mg/Kg	1E+05	3/6/2015 08:56 PM
Aroclor 1242	ND		3,000	mg/Kg	1E+05	3/6/2015 08:56 PM
Aroclor 1248	ND		3,000	mg/Kg	1E+05	3/6/2015 08:56 PM
Aroclor 1254	**230,000**	B	**3,000**	**mg/Kg**	1E+05	3/6/2015 08:56 PM
Aroclor 1260	ND		3,000	mg/Kg	1E+05	3/6/2015 08:56 PM
Aroclor 1262	ND		3,000	mg/Kg	1E+05	3/6/2015 08:56 PM
Aroclor 1268	ND		3,000	mg/Kg	1E+05	3/6/2015 08:56 PM
PCBs, Total	**230,000**			**mg/Kg**	1E+05	3/6/2015 08:56 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 08:56 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 08:56 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R19-L1-C1 **Lab ID:** 1503051-04
Collection Date: 2/28/2015 09:30 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		3,200	mg/Kg	1E+05	3/6/2015 09:13 PM
Aroclor 1221	ND		3,200	mg/Kg	1E+05	3/6/2015 09:13 PM
Aroclor 1232	ND		3,200	mg/Kg	1E+05	3/6/2015 09:13 PM
Aroclor 1242	ND		3,200	mg/Kg	1E+05	3/6/2015 09:13 PM
Aroclor 1248	ND		3,200	mg/Kg	1E+05	3/6/2015 09:13 PM
Aroclor 1254	**390,000**	B	**3,200**	**mg/Kg**	1E+05	3/6/2015 09:13 PM
Aroclor 1260	ND		3,200	mg/Kg	1E+05	3/6/2015 09:13 PM
Aroclor 1262	ND		3,200	mg/Kg	1E+05	3/6/2015 09:13 PM
Aroclor 1268	ND		3,200	mg/Kg	1E+05	3/6/2015 09:13 PM
PCBs, Total	**390,000**			**mg/Kg**	1E+05	3/6/2015 09:13 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 09:13 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 09:13 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R19-L1-C2 **Lab ID:** 1503051-05
Collection Date: 2/28/2015 09:30 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		3,300	mg/Kg-dry	1E+05	3/6/2015 09:30 PM
Aroclor 1221	ND		3,300	mg/Kg-dry	1E+05	3/6/2015 09:30 PM
Aroclor 1232	ND		3,300	mg/Kg-dry	1E+05	3/6/2015 09:30 PM
Aroclor 1242	ND		3,300	mg/Kg-dry	1E+05	3/6/2015 09:30 PM
Aroclor 1248	ND		3,300	mg/Kg-dry	1E+05	3/6/2015 09:30 PM
Aroclor 1254	**570,000**	B	**3,300**	**mg/Kg-dry**	1E+05	3/6/2015 09:30 PM
Aroclor 1260	ND		3,300	mg/Kg-dry	1E+05	3/6/2015 09:30 PM
Aroclor 1262	ND		3,300	mg/Kg-dry	1E+05	3/6/2015 09:30 PM
Aroclor 1268	ND		3,300	mg/Kg-dry	1E+05	3/6/2015 09:30 PM
PCBs, Total	**570,000**			**mg/Kg-dry**	1E+05	3/6/2015 09:30 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 09:30 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 09:30 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**2.1**		**0.050**	**% of sample**	1	3/4/2015 02:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R19-L2-C1 **Lab ID:** 1503051-06
Collection Date: 2/28/2015 09:30 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		2,900	mg/Kg-dry	1E+05	3/6/2015 09:47 PM
Aroclor 1221	ND		2,900	mg/Kg-dry	1E+05	3/6/2015 09:47 PM
Aroclor 1232	ND		2,900	mg/Kg-dry	1E+05	3/6/2015 09:47 PM
Aroclor 1242	ND		2,900	mg/Kg-dry	1E+05	3/6/2015 09:47 PM
Aroclor 1248	ND		2,900	mg/Kg-dry	1E+05	3/6/2015 09:47 PM
Aroclor 1254	**560,000**	B	**2,900**	**mg/Kg-dry**	1E+05	3/6/2015 09:47 PM
Aroclor 1260	ND		2,900	mg/Kg-dry	1E+05	3/6/2015 09:47 PM
Aroclor 1262	ND		2,900	mg/Kg-dry	1E+05	3/6/2015 09:47 PM
Aroclor 1268	ND		2,900	mg/Kg-dry	1E+05	3/6/2015 09:47 PM
PCBs, Total	**560,000**			**mg/Kg-dry**	1E+05	3/6/2015 09:47 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 09:47 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 09:47 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**1.8**		**0.050**	**% of sample**	1	3/4/2015 02:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

ALS Group USA, Corp

Date: *10-Mar-15*

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R23-L1-C1 **Lab ID:** 1503051-07
Collection Date: 2/28/2015 11:00 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		3,400	mg/Kg-dry	1E+05	3/6/2015 10:03 PM
Aroclor 1221	ND		3,400	mg/Kg-dry	1E+05	3/6/2015 10:03 PM
Aroclor 1232	ND		3,400	mg/Kg-dry	1E+05	3/6/2015 10:03 PM
Aroclor 1242	ND		3,400	mg/Kg-dry	1E+05	3/6/2015 10:03 PM
Aroclor 1248	ND		3,400	mg/Kg-dry	1E+05	3/6/2015 10:03 PM
Aroclor 1254	**350,000**	B	**3,400**	**mg/Kg-dry**	1E+05	3/6/2015 10:03 PM
Aroclor 1260	ND		3,400	mg/Kg-dry	1E+05	3/6/2015 10:03 PM
Aroclor 1262	ND		3,400	mg/Kg-dry	1E+05	3/6/2015 10:03 PM
Aroclor 1268	ND		3,400	mg/Kg-dry	1E+05	3/6/2015 10:03 PM
PCBs, Total	**350,000**			**mg/Kg-dry**	1E+05	3/6/2015 10:03 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 10:03 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 10:03 PM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**2.6**		**0.050**	**% of sample**	1	3/4/2015 02:30 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R23-L1-C2 **Lab ID:** 1503051-08
Collection Date: 2/28/2015 11:00 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		8,300	mg/Kg	1E+05	3/6/2015 10:20 PM
Aroclor 1221	ND		8,300	mg/Kg	1E+05	3/6/2015 10:20 PM
Aroclor 1232	ND		8,300	mg/Kg	1E+05	3/6/2015 10:20 PM
Aroclor 1242	ND		8,300	mg/Kg	1E+05	3/6/2015 10:20 PM
Aroclor 1248	ND		8,300	mg/Kg	1E+05	3/6/2015 10:20 PM
Aroclor 1254	**440,000**	B	**8,300**	**mg/Kg**	1E+05	3/6/2015 10:20 PM
Aroclor 1260	ND		8,300	mg/Kg	1E+05	3/6/2015 10:20 PM
Aroclor 1262	ND		8,300	mg/Kg	1E+05	3/6/2015 10:20 PM
Aroclor 1268	ND		8,300	mg/Kg	1E+05	3/6/2015 10:20 PM
PCBs, Total	**440,000**			**mg/Kg**	1E+05	3/6/2015 10:20 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 10:20 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 10:20 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R23-L2-C1 **Lab ID:** 1503051-09
Collection Date: 2/28/2015 11:00 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		3,200	mg/Kg	1E+05	3/6/2015 11:11 PM
Aroclor 1221	ND		3,200	mg/Kg	1E+05	3/6/2015 11:11 PM
Aroclor 1232	ND		3,200	mg/Kg	1E+05	3/6/2015 11:11 PM
Aroclor 1242	ND		3,200	mg/Kg	1E+05	3/6/2015 11:11 PM
Aroclor 1248	ND		3,200	mg/Kg	1E+05	3/6/2015 11:11 PM
Aroclor 1254	**280,000**	B	**3,200**	**mg/Kg**	1E+05	3/6/2015 11:11 PM
Aroclor 1260	ND		3,200	mg/Kg	1E+05	3/6/2015 11:11 PM
Aroclor 1262	ND		3,200	mg/Kg	1E+05	3/6/2015 11:11 PM
Aroclor 1268	ND		3,200	mg/Kg	1E+05	3/6/2015 11:11 PM
PCBs, Total	**280,000**			**mg/Kg**	1E+05	3/6/2015 11:11 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 11:11 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 11:11 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R23-L3-C1 **Lab ID:** 1503051-10
Collection Date: 2/28/2015 11:00 AM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		3,800	mg/Kg	1E+05	3/6/2015 11:27 PM
Aroclor 1221	ND		3,800	mg/Kg	1E+05	3/6/2015 11:27 PM
Aroclor 1232	ND		3,800	mg/Kg	1E+05	3/6/2015 11:27 PM
Aroclor 1242	ND		3,800	mg/Kg	1E+05	3/6/2015 11:27 PM
Aroclor 1248	ND		3,800	mg/Kg	1E+05	3/6/2015 11:27 PM
Aroclor 1254	**180,000**	B	**3,800**	**mg/Kg**	1E+05	3/6/2015 11:27 PM
Aroclor 1260	ND		3,800	mg/Kg	1E+05	3/6/2015 11:27 PM
Aroclor 1262	ND		3,800	mg/Kg	1E+05	3/6/2015 11:27 PM
Aroclor 1268	ND		3,800	mg/Kg	1E+05	3/6/2015 11:27 PM
PCBs, Total	**180,000**			**mg/Kg**	1E+05	3/6/2015 11:27 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 11:27 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 11:27 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R22-L6-C1 **Lab ID:** 1503051-11
Collection Date: 2/28/2015 12:00 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		2,700	mg/Kg	1E+05	3/6/2015 11:44 PM
Aroclor 1221	ND		2,700	mg/Kg	1E+05	3/6/2015 11:44 PM
Aroclor 1232	ND		2,700	mg/Kg	1E+05	3/6/2015 11:44 PM
Aroclor 1242	ND		2,700	mg/Kg	1E+05	3/6/2015 11:44 PM
Aroclor 1248	ND		2,700	mg/Kg	1E+05	3/6/2015 11:44 PM
Aroclor 1254	**280,000**	B	**2,700**	**mg/Kg**	1E+05	3/6/2015 11:44 PM
Aroclor 1260	ND		2,700	mg/Kg	1E+05	3/6/2015 11:44 PM
Aroclor 1262	ND		2,700	mg/Kg	1E+05	3/6/2015 11:44 PM
Aroclor 1268	ND		2,700	mg/Kg	1E+05	3/6/2015 11:44 PM
PCBs, Total	**280,000**			**mg/Kg**	1E+05	3/6/2015 11:44 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/6/2015 11:44 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/6/2015 11:44 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R22-L6-C2 **Lab ID:** 1503051-12
Collection Date: 2/28/2015 12:00 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		3,100	mg/Kg	1E+05	3/7/2015 12:01 AM
Aroclor 1221	ND		3,100	mg/Kg	1E+05	3/7/2015 12:01 AM
Aroclor 1232	ND		3,100	mg/Kg	1E+05	3/7/2015 12:01 AM
Aroclor 1242	ND		3,100	mg/Kg	1E+05	3/7/2015 12:01 AM
Aroclor 1248	ND		3,100	mg/Kg	1E+05	3/7/2015 12:01 AM
Aroclor 1254	**470,000**	B	**3,100**	**mg/Kg**	1E+05	3/7/2015 12:01 AM
Aroclor 1260	ND		3,100	mg/Kg	1E+05	3/7/2015 12:01 AM
Aroclor 1262	ND		3,100	mg/Kg	1E+05	3/7/2015 12:01 AM
Aroclor 1268	ND		3,100	mg/Kg	1E+05	3/7/2015 12:01 AM
PCBs, Total	**470,000**			**mg/Kg**	1E+05	3/7/2015 12:01 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/7/2015 12:01 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/7/2015 12:01 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R22-L7-C1 **Lab ID:** 1503051-13
Collection Date: 2/28/2015 12:00 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		7,700	mg/Kg	1E+05	3/7/2015 12:18 AM
Aroclor 1221	ND		7,700	mg/Kg	1E+05	3/7/2015 12:18 AM
Aroclor 1232	ND		7,700	mg/Kg	1E+05	3/7/2015 12:18 AM
Aroclor 1242	ND		7,700	mg/Kg	1E+05	3/7/2015 12:18 AM
Aroclor 1248	ND		7,700	mg/Kg	1E+05	3/7/2015 12:18 AM
Aroclor 1254	**220,000**	B	**7,700**	**mg/Kg**	1E+05	3/7/2015 12:18 AM
Aroclor 1260	ND		7,700	mg/Kg	1E+05	3/7/2015 12:18 AM
Aroclor 1262	ND		7,700	mg/Kg	1E+05	3/7/2015 12:18 AM
Aroclor 1268	ND		7,700	mg/Kg	1E+05	3/7/2015 12:18 AM
PCBs, Total	**220,000**			**mg/Kg**	1E+05	3/7/2015 12:18 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/7/2015 12:18 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/7/2015 12:18 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-JCES-BF-R22-L7-C2 **Lab ID:** 1503051-14
Collection Date: 2/28/2015 12:00 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		2,800	mg/Kg	1E+05	3/7/2015 12:35 AM
Aroclor 1221	ND		2,800	mg/Kg	1E+05	3/7/2015 12:35 AM
Aroclor 1232	ND		2,800	mg/Kg	1E+05	3/7/2015 12:35 AM
Aroclor 1242	ND		2,800	mg/Kg	1E+05	3/7/2015 12:35 AM
Aroclor 1248	ND		2,800	mg/Kg	1E+05	3/7/2015 12:35 AM
Aroclor 1254	**130,000**	B	**2,800**	**mg/Kg**	1E+05	3/7/2015 12:35 AM
Aroclor 1260	ND		2,800	mg/Kg	1E+05	3/7/2015 12:35 AM
Aroclor 1262	ND		2,800	mg/Kg	1E+05	3/7/2015 12:35 AM
Aroclor 1268	ND		2,800	mg/Kg	1E+05	3/7/2015 12:35 AM
PCBs, Total	**130,000**			**mg/Kg**	1E+05	3/7/2015 12:35 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/7/2015 12:35 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/7/2015 12:35 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B000-R7-L1-C1 **Lab ID:** 1503051-15
Collection Date: 2/28/2015 01:15 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		29	mg/Kg	1000	3/6/2015 04:57 PM
Aroclor 1221	ND		29	mg/Kg	1000	3/6/2015 04:57 PM
Aroclor 1232	ND		29	mg/Kg	1000	3/6/2015 04:57 PM
Aroclor 1242	ND		29	mg/Kg	1000	3/6/2015 04:57 PM
Aroclor 1248	ND		29	mg/Kg	1000	3/6/2015 04:57 PM
Aroclor 1254	**330**	B	**29**	**mg/Kg**	1000	3/6/2015 04:57 PM
Aroclor 1260	ND		29	mg/Kg	1000	3/6/2015 04:57 PM
Aroclor 1262	ND		29	mg/Kg	1000	3/6/2015 04:57 PM
Aroclor 1268	ND		29	mg/Kg	1000	3/6/2015 04:57 PM
PCBs, Total	**330**			**mg/Kg**	1000	3/6/2015 04:57 PM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1000	3/6/2015 04:57 PM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1000	3/6/2015 04:57 PM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B000-R7-L2-C1 **Lab ID:** 1503051-16
Collection Date: 2/28/2015 01:15 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		150	mg/Kg	5000	3/9/2015 09:13 AM
Aroclor 1221	ND		150	mg/Kg	5000	3/9/2015 09:13 AM
Aroclor 1232	ND		150	mg/Kg	5000	3/9/2015 09:13 AM
Aroclor 1242	ND		150	mg/Kg	5000	3/9/2015 09:13 AM
Aroclor 1248	ND		150	mg/Kg	5000	3/9/2015 09:13 AM
Aroclor 1254	**1,800**	B	**150**	**mg/Kg**	5000	3/9/2015 09:13 AM
Aroclor 1260	ND		150	mg/Kg	5000	3/9/2015 09:13 AM
Aroclor 1262	ND		150	mg/Kg	5000	3/9/2015 09:13 AM
Aroclor 1268	ND		150	mg/Kg	5000	3/9/2015 09:13 AM
PCBs, Total	**1,800**			**mg/Kg**	5000	3/9/2015 09:13 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	5000	3/9/2015 09:13 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	5000	3/9/2015 09:13 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B000-R3-L4-C1 **Lab ID:** 1503051-17
Collection Date: 2/28/2015 02:30 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/5/15	Analyst: **KYM**
Aroclor 1016	ND		140	mg/Kg-dry	5000	3/9/2015 10:54 AM
Aroclor 1221	ND		140	mg/Kg-dry	5000	3/9/2015 10:54 AM
Aroclor 1232	ND		140	mg/Kg-dry	5000	3/9/2015 10:54 AM
Aroclor 1242	ND		140	mg/Kg-dry	5000	3/9/2015 10:54 AM
Aroclor 1248	ND		140	mg/Kg-dry	5000	3/9/2015 10:54 AM
Aroclor 1254	**1,600**	B	**140**	**mg/Kg-dry**	5000	3/9/2015 10:54 AM
Aroclor 1260	ND		140	mg/Kg-dry	5000	3/9/2015 10:54 AM
Aroclor 1262	ND		140	mg/Kg-dry	5000	3/9/2015 10:54 AM
Aroclor 1268	ND		140	mg/Kg-dry	5000	3/9/2015 10:54 AM
PCBs, Total	**1,600**			**mg/Kg-dry**	5000	3/9/2015 10:54 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	5000	3/9/2015 10:54 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	5000	3/9/2015 10:54 AM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**0.090**		**0.050**	**% of sample**	1	3/5/2015 10:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B000-R3-L10-C1 **Lab ID:** 1503051-18
Collection Date: 2/28/2015 02:30 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/5/15	Analyst: **KYM**
Aroclor 1016	ND		160	mg/Kg-dry	5000	3/9/2015 10:37 AM
Aroclor 1221	ND		160	mg/Kg-dry	5000	3/9/2015 10:37 AM
Aroclor 1232	ND		160	mg/Kg-dry	5000	3/9/2015 10:37 AM
Aroclor 1242	ND		160	mg/Kg-dry	5000	3/9/2015 10:37 AM
Aroclor 1248	ND		160	mg/Kg-dry	5000	3/9/2015 10:37 AM
Aroclor 1254	**1,800**	B	**160**	**mg/Kg-dry**	5000	3/9/2015 10:37 AM
Aroclor 1260	ND		160	mg/Kg-dry	5000	3/9/2015 10:37 AM
Aroclor 1262	ND		160	mg/Kg-dry	5000	3/9/2015 10:37 AM
Aroclor 1268	ND		160	mg/Kg-dry	5000	3/9/2015 10:37 AM
PCBs, Total	**1,800**			**mg/Kg-dry**	5000	3/9/2015 10:37 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	5000	3/9/2015 10:37 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	5000	3/9/2015 10:37 AM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**0.090**		**0.050**	**% of sample**	1	3/5/2015 10:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B400-R401-L1-C1 **Lab ID:** 1503051-19
Collection Date: 2/28/2015 03:15 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/5/15	Analyst: **KYM**
Aroclor 1016	ND		3,000	mg/Kg	1E+05	3/7/2015 02:33 AM
Aroclor 1221	ND		3,000	mg/Kg	1E+05	3/7/2015 02:33 AM
Aroclor 1232	ND		3,000	mg/Kg	1E+05	3/7/2015 02:33 AM
Aroclor 1242	ND		3,000	mg/Kg	1E+05	3/7/2015 02:33 AM
Aroclor 1248	ND		3,000	mg/Kg	1E+05	3/7/2015 02:33 AM
Aroclor 1254	**190,000**	B	**3,000**	**mg/Kg**	1E+05	3/7/2015 02:33 AM
Aroclor 1260	ND		3,000	mg/Kg	1E+05	3/7/2015 02:33 AM
Aroclor 1262	ND		3,000	mg/Kg	1E+05	3/7/2015 02:33 AM
Aroclor 1268	ND		3,000	mg/Kg	1E+05	3/7/2015 02:33 AM
PCBs, Total	**190,000**			**mg/Kg**	1E+05	3/7/2015 02:33 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/7/2015 02:33 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/7/2015 02:33 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B500-R505-L1-C1 **Lab ID:** 1503051-20
Collection Date: 2/28/2015 04:00 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/5/15	Analyst: **KYM**
Aroclor 1016	ND		3,100	mg/Kg-dry	1E+05	3/7/2015 02:16 AM
Aroclor 1221	ND		3,100	mg/Kg-dry	1E+05	3/7/2015 02:16 AM
Aroclor 1232	ND		3,100	mg/Kg-dry	1E+05	3/7/2015 02:16 AM
Aroclor 1242	ND		3,100	mg/Kg-dry	1E+05	3/7/2015 02:16 AM
Aroclor 1248	ND		3,100	mg/Kg-dry	1E+05	3/7/2015 02:16 AM
Aroclor 1254	**220,000**	B	**3,100**	**mg/Kg-dry**	1E+05	3/7/2015 02:16 AM
Aroclor 1260	ND		3,100	mg/Kg-dry	1E+05	3/7/2015 02:16 AM
Aroclor 1262	ND		3,100	mg/Kg-dry	1E+05	3/7/2015 02:16 AM
Aroclor 1268	ND		3,100	mg/Kg-dry	1E+05	3/7/2015 02:16 AM
PCBs, Total	**220,000**			**mg/Kg-dry**	1E+05	3/7/2015 02:16 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	1E+05	3/7/2015 02:16 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	1E+05	3/7/2015 02:16 AM
MOISTURE			**E160.3M**			Analyst: **EVB**
Moisture	**0.79**		**0.050**	**% of sample**	1	3/5/2015 10:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B700-R704Hall-L1-C1 **Lab ID:** 1503051-21
Collection Date: 2/28/2015 04:45 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/5/15	Analyst: **KYM**
Aroclor 1016	ND		270	mg/Kg	5000	3/9/2015 09:29 AM
Aroclor 1221	ND		270	mg/Kg	5000	3/9/2015 09:29 AM
Aroclor 1232	ND		270	mg/Kg	5000	3/9/2015 09:29 AM
Aroclor 1242	ND		270	mg/Kg	5000	3/9/2015 09:29 AM
Aroclor 1248	ND		270	mg/Kg	5000	3/9/2015 09:29 AM
Aroclor 1254	**3,800**	B	**270**	**mg/Kg**	5000	3/9/2015 09:29 AM
Aroclor 1260	ND		270	mg/Kg	5000	3/9/2015 09:29 AM
Aroclor 1262	ND		270	mg/Kg	5000	3/9/2015 09:29 AM
Aroclor 1268	ND		270	mg/Kg	5000	3/9/2015 09:29 AM
PCBs, Total	**3,800**			**mg/Kg**	5000	3/9/2015 09:29 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	5000	3/9/2015 09:29 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	5000	3/9/2015 09:29 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B700-R704-L5-C1 **Lab ID:** 1503051-22
Collection Date: 2/28/2015 05:30 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/5/15	Analyst: **KYM**
Aroclor 1016	ND		160	mg/Kg	5000	3/9/2015 09:46 AM
Aroclor 1221	ND		160	mg/Kg	5000	3/9/2015 09:46 AM
Aroclor 1232	ND		160	mg/Kg	5000	3/9/2015 09:46 AM
Aroclor 1242	ND		160	mg/Kg	5000	3/9/2015 09:46 AM
Aroclor 1248	ND		160	mg/Kg	5000	3/9/2015 09:46 AM
Aroclor 1254	**1,800**	B	**160**	**mg/Kg**	5000	3/9/2015 09:46 AM
Aroclor 1260	ND		160	mg/Kg	5000	3/9/2015 09:46 AM
Aroclor 1262	ND		160	mg/Kg	5000	3/9/2015 09:46 AM
Aroclor 1268	ND		160	mg/Kg	5000	3/9/2015 09:46 AM
PCBs, Total	**1,800**			**mg/Kg**	5000	3/9/2015 09:46 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	5000	3/9/2015 09:46 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	5000	3/9/2015 09:46 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B700-R704-L5-C2 **Lab ID:** 1503051-23
Collection Date: 2/28/2015 06:20 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		140	mg/Kg	5000	3/9/2015 10:03 AM
Aroclor 1221	ND		140	mg/Kg	5000	3/9/2015 10:03 AM
Aroclor 1232	ND		140	mg/Kg	5000	3/9/2015 10:03 AM
Aroclor 1242	ND		140	mg/Kg	5000	3/9/2015 10:03 AM
Aroclor 1248	ND		140	mg/Kg	5000	3/9/2015 10:03 AM
Aroclor 1254	**1,500**	B	**140**	**mg/Kg**	5000	3/9/2015 10:03 AM
Aroclor 1260	ND		140	mg/Kg	5000	3/9/2015 10:03 AM
Aroclor 1262	ND		140	mg/Kg	5000	3/9/2015 10:03 AM
Aroclor 1268	ND		140	mg/Kg	5000	3/9/2015 10:03 AM
PCBs, Total	**1,500**			**mg/Kg**	5000	3/9/2015 10:03 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	5000	3/9/2015 10:03 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	5000	3/9/2015 10:03 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Revision: 1

Client: ENVIRON International Corp
Project: MHS/JCES (0433980P) **Work Order:** 1503051
Sample ID: 022815-MHS-B700-R704-L2-C1 **Lab ID:** 1503051-24
Collection Date: 2/28/2015 06:20 PM **Matrix:** SOLID

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			**SW8082**		Prep: SW3540C / 3/4/15	Analyst: **KYM**
Aroclor 1016	ND		140	mg/Kg	5000	3/9/2015 10:20 AM
Aroclor 1221	ND		140	mg/Kg	5000	3/9/2015 10:20 AM
Aroclor 1232	ND		140	mg/Kg	5000	3/9/2015 10:20 AM
Aroclor 1242	ND		140	mg/Kg	5000	3/9/2015 10:20 AM
Aroclor 1248	ND		140	mg/Kg	5000	3/9/2015 10:20 AM
Aroclor 1254	**4,500**	B	**140**	**mg/Kg**	5000	3/9/2015 10:20 AM
Aroclor 1260	ND		140	mg/Kg	5000	3/9/2015 10:20 AM
Aroclor 1262	ND		140	mg/Kg	5000	3/9/2015 10:20 AM
Aroclor 1268	ND		140	mg/Kg	5000	3/9/2015 10:20 AM
PCBs, Total	**4,500**			**mg/Kg**	5000	3/9/2015 10:20 AM
Surr: Decachlorobiphenyl	*0*	S	*40-140*	*%REC*	5000	3/9/2015 10:20 AM
Surr: Tetrachloro-m-xylene	*0*	S	*45-124*	*%REC*	5000	3/9/2015 10:20 AM

Note: See Qualifiers page for a list of qualifiers and their definitions.

Batch ID: **68235** Instrument ID **GC7** Method: **SW8082**

MBLK Sample ID: **PBLKS1-68235-68235** Units: **µg/Kg** Analysis Date: **3/6/2015 07:48 PM**

Client ID: Run ID: **GC7_150306A** SeqNo: **3169611** Prep Date: **3/4/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	33								
Aroclor 1221	ND	33								
Aroclor 1232	ND	33								
Aroclor 1242	ND	33								
Aroclor 1248	ND	33								
Aroclor 1254	100	33								
Aroclor 1260	ND	33								
Aroclor 1262	ND	33								
Aroclor 1268	ND	33								
PCBs, Total	100	0								
Surr: Decachlorobiphenyl	*113.3*	0	*166*	0	*68.3*	*50-130*	0			
Surr: Tetrachloro-m-xylene	*103.3*	0	*166*	0	*62.2*	*45-124*	0			

LCS Sample ID: **PLCSS1-68235-68235** Units: **µg/Kg** Analysis Date: **3/6/2015 08:06 PM**

Client ID: Run ID: **GC7_150306A** SeqNo: **3169612** Prep Date: **3/4/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	2063	33	1666	0	124	50-130	0			
Aroclor 1260	2027	33	1666	0	122	50-130	0			
Surr: Decachlorobiphenyl	*150*	0	*166.6*	0	*90*	*50-130*	0			
Surr: Tetrachloro-m-xylene	*146.7*	0	*166.6*	0	*88*	*45-124*	0			

The following samples were analyzed in this batch:

1503051-01A	1503051-02A	1503051-03A
1503051-04A	1503051-05A	1503051-06A
1503051-07A	1503051-08A	1503051-09A
1503051-10A	1503051-11A	1503051-12A
1503051-13A	1503051-14A	1503051-15A
1503051-16A	1503051-23A	1503051-24A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Batch ID: **68282** Instrument ID **GC7** Method: **SW8082**

MBLK Sample ID: **PBLKS1-68282-68282** Units: **µg/Kg** Analysis Date: **3/9/2015 02:39 PM**
Client ID: Run ID: **GC7_150306A** SeqNo: **3169657** Prep Date: **3/5/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	33								
Aroclor 1221	ND	33								
Aroclor 1232	ND	33								
Aroclor 1242	ND	33								
Aroclor 1248	ND	33								
Aroclor 1254	836.7	33								
Aroclor 1260	ND	33								
Aroclor 1262	ND	33								
Aroclor 1268	ND	33								
PCBs, Total	836.7	0								
Surr: Decachlorobiphenyl	*163.3*	0	*166*	0	*98.4*	*50-130*	0			
Surr: Tetrachloro-m-xylene	*140*	0	*166*	0	*84.3*	*45-124*	0			

LCS Sample ID: **PLCSS1-68282-68282** Units: **µg/Kg** Analysis Date: **3/6/2015 10:54 PM**
Client ID: Run ID: **GC7_150306A** SeqNo: **3169658** Prep Date: **3/5/2015** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	2930	33	1666	0	176	50-130	0			S
Aroclor 1260	3203	33	1666	0	192	50-130	0			S
Surr: Decachlorobiphenyl	*150*	0	*166*	0	*90.4*	*50-130*	0			
Surr: Tetrachloro-m-xylene	*143.3*	0	*166*	0	*86.3*	*45-124*	0			

MS Sample ID: **1503051-17A MS** Units: **µg/Kg** Analysis Date: **3/9/2015 11:10 AM**
Client ID: **022815-MHS-B000-R3-L4-C1** Run ID: **GC7_150306A** SeqNo: **3169650** Prep Date: **3/5/2015** DF: **5000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	160,000	1629	0	0	40-140	0			S
Aroclor 1260	ND	160,000	1629	0	0	40-140	0			S
Surr: Decachlorobiphenyl	*ND*	0	*162.3*	0	*0*	*40-140*	0			*S*
Surr: Tetrachloro-m-xylene	*ND*	0	*162.3*	0	*0*	*45-124*	0			*S*

MSD Sample ID: **1503051-17A MSD** Units: **µg/Kg** Analysis Date: **3/9/2015 11:27 AM**
Client ID: **022815-MHS-B000-R3-L4-C1** Run ID: **GC7_150306A** SeqNo: **3169651** Prep Date: **3/5/2015** DF: **5000**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	ND	140,000	1420	0	0	40-140	0	0	50	S
Aroclor 1260	ND	140,000	1420	0	0	40-140	0	0	50	S
Surr: Decachlorobiphenyl	*ND*	0	*141.5*	0	*0*	*40-140*	0	*0*	*50*	*S*
Surr: Tetrachloro-m-xylene	*ND*	0	*141.5*	0	*0*	*45-124*	0	*0*	*50*	*S*

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: ENVIRON International Corp
Work Order: 1503051
Project: MHS/JCES (0433980P)

QC BATCH REPORT

Batch ID: **68282** Instrument ID **GC7** Method: **SW8082**

The following samples were analyzed in this batch:

1503051-17A	1503051-18A	1503051-19A
1503051-20A	1503051-21A	1503051-22A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: ENVIRON International Corp
Work Order: 1503051
Project: MHS/JCES (0433980P)

QC BATCH REPORT

Batch ID: **R158603** Instrument ID **MOIST** Method: **E160.3M**

MBLK Sample ID: **WBLKS-R158603** Units: **% of sample** Analysis Date: **3/4/2015 02:30 PM**
Client ID: Run ID: **MOIST_150304A** SeqNo: **3165945** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	0.03	0.050								J

LCS Sample ID: **LCS-R158603** Units: **% of sample** Analysis Date: **3/4/2015 02:30 PM**
Client ID: Run ID: **MOIST_150304A** SeqNo: **3165944** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	99.99	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **15021275-01A DUP** Units: **% of sample** Analysis Date: **3/4/2015 02:30 PM**
Client ID: Run ID: **MOIST_150304A** SeqNo: **3165922** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	10.88	0.050	0	0	0		10.8	0.738	20	

DUP Sample ID: **1503156-01A DUP** Units: **% of sample** Analysis Date: **3/4/2015 02:30 PM**
Client ID: Run ID: **MOIST_150304A** SeqNo: **3165936** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	42.17	0.050	0	0	0		41.67	1.19	20	

The following samples were analyzed in this batch: 1503051-05A 1503051-06A 1503051-07A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

Client: ENVIRON International Corp
Work Order: 1503051
Project: MHS/JCES (0433980P)

QC BATCH REPORT

Batch ID: **R158633** Instrument ID **MOIST** Method: **E160.3M**

MBLK Sample ID: **WBLKS-R158633** Units: **% of sample** Analysis Date: **3/5/2015 10:20 AM**
Client ID: Run ID: **MOIST_150305A** SeqNo: **3166494** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	ND	0.050								

LCS Sample ID: **LCS-R158633** Units: **% of sample** Analysis Date: **3/5/2015 10:20 AM**
Client ID: Run ID: **MOIST_150305A** SeqNo: **3166493** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	100	0.050	100	0	100	99.5-100.5	0			

DUP Sample ID: **1503135-01B DUP** Units: **% of sample** Analysis Date: **3/5/2015 10:20 AM**
Client ID: Run ID: **MOIST_150305A** SeqNo: **3166492** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Moisture	9.87	0.050	0	0	0		9.84	0.304	20	

The following samples were analyzed in this batch: 1503051-17A 1503051-18A 1503051-20A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Revision: 1

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Chain of Custody Form

Page 1 of 3

☑ ALS Environmental
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(Tel) 616.399.6070
(Fax) 616.399.6185

ALS Project Manager: | ALS Work Order #: 1503051

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	MHS/JCES	A	EPA Method 8082 for Aroclors w/ Soxhlet Extraction Method 3540
Work Order		Project Number	0433980P	B	NA
Company Name	ENVIRON	Bill To Company	ENVIRON	C	NA
Send Report To	Doug Daugherty	Invoice Attn.	Doug Daugherty	D	NA
Address	201 California Street, Suite 1200	Address	201 California Street, Suite 1200	E	NA
				F	NA
City/State/Zip	San Francisco, CA 94111	City/State/Zip	San Francisco, CA 94111	G	NA
Phone	T: +1 415 796 1932	Phone	T: +1 415 796 1932	H	NA
Fax	F: +1 415 398 5812	Fax	F: +1 415 398 5812	I	NA
e-Mail Address	ddaugherty@Environcorp.com; ARohrDaniel@environcorp.com		ddaugherty@Environcorp.com; ARohrDaniel@environcorp.com	J	NA

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	022815-JCES-BF-R18-L1-C1	2/28/2015	8:00 AM	Caulk	8	1	X										
2	022815-JCES-BF-R18-L1-C2	2/28/2015	8:00 AM	Caulk	8	1	X										
3	022815-JCES-BF-R18-L2-C1	2/28/2015	8:00 AM	Caulk	8	1	X										
4	022815-JCES-BF-R19-L1-C1	2/28/2015	9:30 AM	Caulk	8	1	X										
5	022815-JCES-BF-R19-L1-C2	2/28/2015	9:30 AM	Caulk	8	1	X										
6	022815-JCES-BF-R19-L2-C1	2/28/2015	9:30 AM	Caulk	8	1	X										
7	022815-JCES-BF-R23-L1-C1	2/28/2015	11:00 AM	Caulk	8	1	X										
8	022815-JCES-BF-R23-L1-C2	2/28/2015	11:00 AM	Caulk	8	1	X										
9	022815-JCES-BF-R23-L2-C1	2/28/2015	11:00 AM	Caulk	8	1	X										
10	022815-JCES-BF-R23-L3-C1	2/28/2015	11:00 AM	Caulk	8	1	X										

Sampler(s): Please Print & Sign: REBECCA HERRMANN Rebecca Herrmann | Shipment Method: FED-EX | Required Turnaround Time: (Check Box) ☐ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☑ 2 Wk Days ☐ 24 Hour ☐ Other | Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
REBECCA HERRMANN Red Bronstein	3/2/15	1600	FED EX			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
FED EX				3/3/15	0815	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
DES	3/3/15	0830				

ALS Cooler ID	Cooler Temp
	3.2 °C

QC Package: (Check Box Below)
☐ Level II: Standard QC ☐ Level III: Raw Data
☐ TRRP LRC ☐ TRRP Level IV
☑ Level IV: SW846 Methods/CLP like
☐ Other:

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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Page 2 of 3

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ALS Project Manager: | ALS Work Order #: L1503051

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	MHS/JCES	A	EPA Method 8082 for Aroclors w/ Soxhlet Extraction Method 3540
Work Order		Project Number	0433980P	B	Moisture
Company Name	ENVIRON	Bill To Company	ENVIRON	C	NA
Send Report To	Doug Daugherty	Invoice Attn.	Doug Daugherty	D	NA
Address	201 California Street, Suite 1200	Address	201 California Street, Suite 1200	E	NA
				F	NA
City/State/Zip	San Francisco, CA 94111	City/State/Zip	San Francisco, CA 94111	G	NA
Phone	T: +1 415 796 1932	Phone	T: +1 415 796 1932	H	NA
Fax	F: +1 415 398 5812	Fax	F: +1 415 398 5812	I	NA
e-Mail Address	ddaugherty@Environcorp.com; ARohrDaniel@environcorp.com		ddaugherty@Environcorp.com; ARohrDaniel@environcorp.com	J	NA

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	022815-JCES-BF-R22-L6-C1	2/28/2015	12:00 PM	Caulk	8	1	X										
2	022815-JCES-BF-R22-L6-C2	2/28/2015	12:00 PM	Caulk	8	1	X										
3	022815-JCES-BF-R22-L7-C1	2/28/2015	12:00 PM	Caulk	8	1	X										
4	022815-JCES-BF-R22-L7-C2	2/28/2015	12:00 PM	Caulk	8	1	X										
5	022815-MHS-B000-R7-L1-C1	2/28/2015	1:15 PM	Caulk	8	1	X										
6	022815-MHS-B000-R7-L2-C1	2/28/2015	1:15 PM	Caulk	8	1	X										
7	022815-MHS-B000-R3-L4-C1	2/28/2015	2:30 PM	Caulk	8	1	X	X									
8	022815-MHS-B000-R3-L10-C1	2/28/2015	2:30 PM	Caulk	8	1	X										
9	022815-MHS-B400-R401-L1-C1	2/28/2015	3:15 PM	Caulk	8	1	X										
10	022815-MHS-B500-R505-L1-C1	2/28/2015	4:00 PM	Caulk	8	1	X										

Sampler(s): Please Print & Sign: REBECCA HERRMANN

Shipment Method: FED-EX

Required Turnaround Time: (Check Box) ☐ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☑ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
REBECCA HERRMANN / Rod Bmostein	3/2/15	1600	FED EX			
Relinquished by: FED EX	Date:	Time:	Received by (Laboratory):	Date: 3/3/15	Time: 0815	
Logged by (Laboratory): DES	Date: 3/3/15	Time: 0830	Checked by (Laboratory):			

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
	3.2°C	☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☑ Level IV: SW846 Methods/CLP like	
		☐ Other:	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

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ALS Project Manager: | ALS Work Order #: 1503051

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	MHS/JCES	A	EPA Method 8082 for Aroclors w/ Soxhlet Extraction Method 3540
Work Order		Project Number	0433980P	B	NA
Company Name	ENVIRON	Bill To Company	ENVIRON	C	NA
Send Report To	Doug Daugherty	Invoice Attn	Doug Daugherty	D	NA
Address	201 California Street, Suite 1200	Address	201 California Street, Suite 1200	E	NA
				F	NA
City/State/Zip	San Francisco, CA 94111	City/State/Zip	San Francisco, CA 94111	G	NA
Phone	T: +1 415 796 1932	Phone	T: +1 415 796 1932	H	NA
Fax	F: +1 415 398 5812	Fax	F: +1 415 398 5812	I	NA
e-Mail Address	ddaugherty@Environcorp.com; ARohrDaniel@environcorp.com		ddaugherty@Environcorp.com; ARohrDaniel@environcorp.com	J	NA

No.	Sample Description	Date	Time	Matrix	Pres. Key Numbers	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	022815-MHS-B700-R704Hall-L1-C1	2/28/2015	4:45 PM	Caulk	8	1	X										
2	022815-MHS-B700-R704-L5-C1	2/28/2015	5:30 PM	Caulk	8	1	X										
3	022815-MHS-B700-R704-L5-C2	2/28/2015	6:20 PM	Caulk	8	1	X										
4	022815-MHS-B700-R704-L2-C1	2/28/2015	6:20 PM	Caulk	8	1	X										
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s): Please Print & Sign: REBECCA HERRMANN Rebecca Herrmann

Shipment Method: FED-EX

Required Turnaround Time: (Check Box) ☐ 10 Wk Days ☐ 5 Wk Days ☐ 3 Wk Days ☑ 2 Wk Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
REBECCA HERRMANN Red Bronstein	3/2/15	1600	FED EX			
Relinquished by:	Date:	Time:	Received by (Laboratory):	Date:	Time:	
FED EX				3/3/15	0815	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):			
DES	3/3/15	0830				

ALS Cooler ID	Cooler Temp	QC Package: (Check Box Below)	
	3.2°C	☐ Level II: Standard QC	☐ Level III: Raw Data
		☐ TRRP LRC	☐ TRRP Level IV
		☑ Level IV: SW846 Methods/CLP like	
		☐ Other:	

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.

From: (949) 261-5151
Rebecca Herrmann
ENVIRON International Corp
18100 Von Karman Ave.
Suite 600
Irvine, CA 92612

Origin ID: NZJA

FedEx Express

J151215022303uv

Ship Date: 02MAR15
ActWgt: 15.0 LB
CAD: 100460508/INET3610

Delivery Address Bar Code

Ref # 0433960P
Invoice #
PO #
Dept #

SHIP TO: (616) 399-6070 BILL SENDER

ALS Environmental

3352 128th Avenue

HOLLAND, MI 49424

TUE - 03 MAR 9:00A
FIRST OVERNIGHT

TRK# 7730 2978 5881
0201

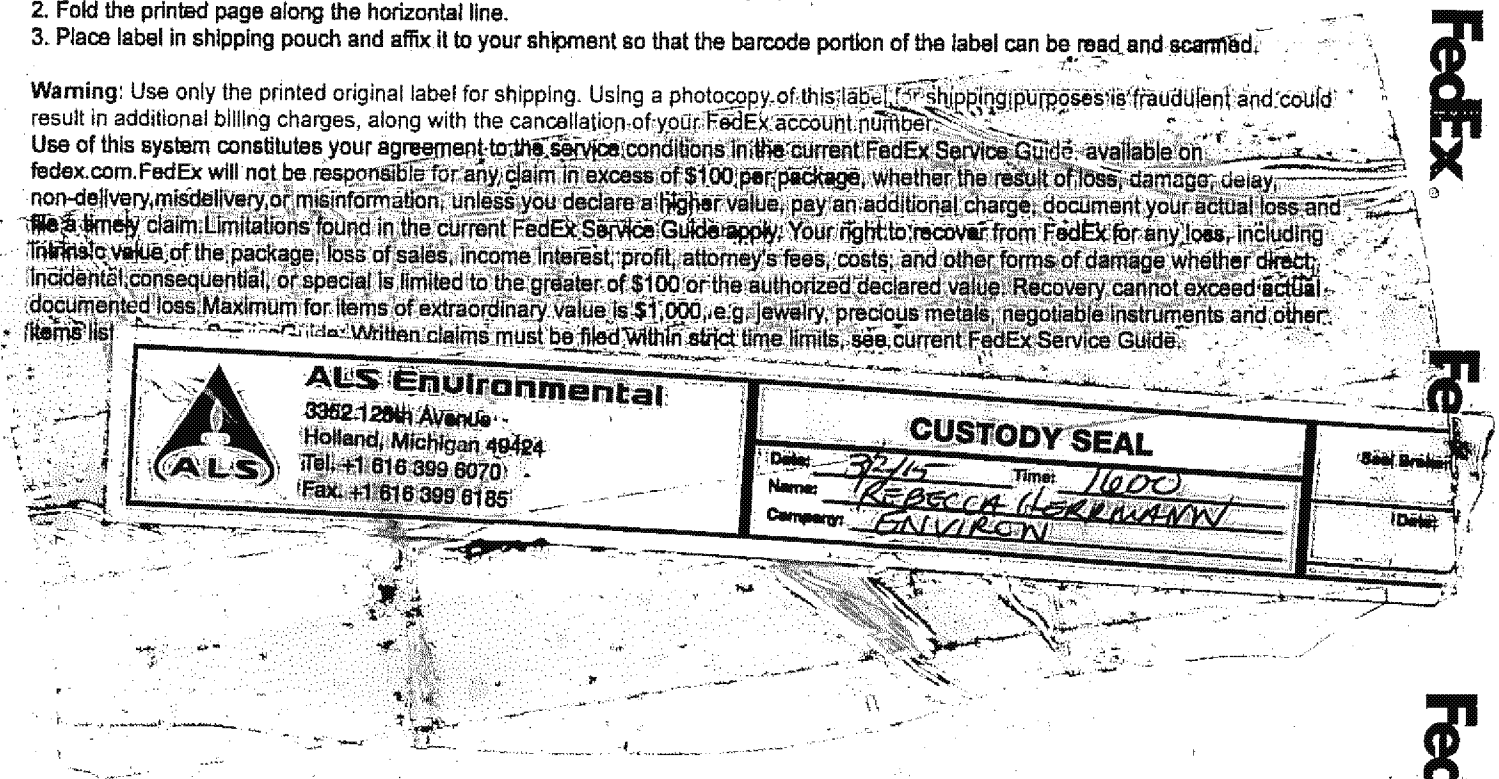
X1 HLMA

49424
MI-US
GRR

537J1879AEE4B

After printing this label:
1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.
Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of $100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of $100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is $1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



ALS Group USA, Corp

Sample Receipt Checklist

Client Name: **ENVIRONINT - CA** Date/Time Received: **03-Mar-15 08:15**

Work Order: **1503051** Received by: **DS**

Checklist completed by Diane Shaw (eSignature) 03-Mar-15 (Date) Reviewed by: Alex Csaszar (eSignature) 03-Mar-15 (Date)

Matrices: Solid

Carrier name: FedEx

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☐	No ☑	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Sample(s) received on ice?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	3.2 c	SR2	
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	3/3/2015 9:11:41 AM		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes: Limited volumes for all samples.

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

Revision: 1

ENVIRON

Data Validation Report #33878 (Bulk)

Sample Date: February 28, 2015
MHS and JCES

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

ENVIRON International Corporation
18100 Von Karman Avenue Ste. 600
Irvine, CA 92612
Attn: Ms. Yi Tian

March 18, 2015

SUBJECT: SMMUSD, Data Validation

Dear Ms. Tian

Enclosed is the final validation report for the fraction listed below. This SDG was received on March 13, 2015. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #33878:

SDG #	Fraction
1503051	Polychlorinated Biphenyls

The data validation was performed under EPA Level IV guidelines. The analyses were validated using the following documents, as applicable to each method:

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008
- EPA SW 846, Third Edition, Test Methods for Evaluating Solid Waste, update 1, July 1992; update IIA, August 1993; update II, September 1994; update IIB, January 1995; update III, December 1996; update IIIA, April 1998; IIIB, November 2004; Update IV, February 2007

Please feel free to contact us if you have any questions.

Sincerely,

Andrew Kong
Project Manager/Senior Chemist

Per SDG

242 pages-EM **1 WEEK TAT** Attachment 1

Level III/IV

LDC #33878 (Environ-Irvine / SMMUSD)

LDC	SDG#	DATE REC'D	(2) DATE DUE	PCBs (8082)																															
Matrix: Caulk/Water/Soil				C	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	1503051	03/13/15	03/18/15	24	0																														
Total	T/AK			24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS/MSD, and DUPs

L:\Environ\SMMUSD\33878ST.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: SMMUSD

Collection Date: February 28, 2015

LDC Report Date: March 16, 2015

Matrix: Caulk

Parameters: Polychlorinated Biphenyls

Validation Level: EPA Level IV

Laboratory: ALS Environmental

Sample Delivery Group (SDG): 1503051

Sample Identification

022815-JCES-BF-R18-L1-C1
022815-JCES-BF-R18-L1-C2
022815-JCES-BF-R18-L2-C1
022815-JCES-BF-R19-L1-C1
022815-JCES-BF-R19-L1-C2
022815-JCES-BF-R19-L2-C1
022815-JCES-BF-R23-L1-C1
022815-JCES-BF-R23-L1-C2
022815-JCES-BF-R23-L2-C1
022815-JCES-BF-R23-L3-C1
022815-JCES-BF-R22-L6-C1
022815-JCES-BF-R22-L6-C2
022815-JCES-BF-R22-L7-C1
022815-JCES-BF-R22-L7-C2
022815-MHS-B000-R7-L1-C1
022815-MHS-B000-R7-L2-C1
022815-MHS-B000-R3-L4-C1
022815-MHS-B000-R3-L10-C1
022815-MHS-B400-R401-L1-C1
022815-MHS-B500-R505-L1-C1
022815-MHS-B700-R704Hall-L1-C1
022815-MHS-B700-R704-L5-C1
022815-MHS-B700-R704-L5-C2
022815-MHS-B700-R704-L2-C1
022815-MHS-B000-R3-L4-C1MS
022815-MHS-B000-R3-L4-C1MSD

Introduction

This data review covers 26 caulk samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA SW 846 Method 8082 for Polychlorinated Biphenyls.

This review follows a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. GC Instrument Performance Check

Instrument performance was not required by the method.

III. Initial Calibration

Initial calibration was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

Retention time windows were established as required by the method.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 20.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 20.0% for all compounds.

Retention times of all compounds in the calibration standards were within the established retention time windows.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No polychlorinated biphenyl contaminants were found in the method blanks with the following exceptions:

Method Blank ID	Extraction Date	Compound	Concentration	Associated Samples
PBLKS1-68235	3/4/15	Aroclor-1254 PCBs, Total	100 ug/Kg 100 ug/Kg	022815-JCES-BF-R18-L1-C1 022815-JCES-BF-R18-L1-C2 022815-JCES-BF-R18-L2-C1 022815-JCES-BF-R19-L1-C1 022815-JCES-BF-R19-L1-C2 022815-JCES-BF-R19-L2-C1 022815-JCES-BF-R23-L1-C1 022815-JCES-BF-R23-L1-C2 022815-JCES-BF-R23-L2-C1 022815-JCES-BF-R23-L3-C1 022815-JCES-BF-R22-L6-C1 022815-JCES-BF-R22-L6-C2 022815-JCES-BF-R22-L7-C1 022815-JCES-BF-R22-L7-C2 022815-MHS-B000-R7-L1-C1 022815-MHS-B000-R7-L2-C1 022815-MHS-B700-R704-L5-C2 022815-MHS-B700-R704-L2-C1
PBLKS1-68282	3/5/15	Aroclor-1254 PCBs, Total	836.7 ug/Kg 836.7 ug/Kg	022815-MHS-B000-R3-L4-C1 022815-MHS-B000-R3-L10-C1 022815-MHS-B400-R401-L1-C1 022815-MHS-B500-R505-L1-C1 022815-MHS-B700-R704Hall-L1-C1 022815-MHS-B700-R704-L5-C1

Sample concentrations were compared to concentrations detected in the method blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
022815-MHS-B000-R7-L1-C1	Aroclor-1254 PCBs, Total	330 ug/Kg 330 ug/Kg	330U ug/Kg 330U ug/Kg
022815-MHS-B000-R3-L4-C1	Aroclor-1254 PCBs, Total	1600 ug/Kg 1600 ug/Kg	1600U ug/Kg 1600U ug/Kg
022815-MHS-B000-R3-L10-C1	Aroclor-1254 PCBs, Total	1800 ug/Kg 1800 ug/Kg	1800U ug/Kg 1800U ug/Kg
022815-MHS-B700-R704Hall-L1-C1	Aroclor-1254 PCBs, Total	3800 ug/Kg 3800 ug/Kg	3800U ug/Kg 3800U ug/Kg
022815-MHS-B700-R704-L5-C1	Aroclor-1254 PCBs, Total	1800 ug/Kg 1800 ug/Kg	1800U ug/Kg 1800U ug/Kg

No field blanks were identified in this SDG.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. Surrogate recoveries (%R) were not within QC limits for all samples. No data were qualified for samples analyzed at greater than or equal to a 5X dilution.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) were not within the QC limits for 022815-MHS-B000-R3-L4-C1MS/MSD. No data were qualified for MS/MSD samples analyzed greater than or equal to a 5X dilution.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QC limits with the following exceptions:

LCS ID	Compound	%R (Limits)	Associated Samples	Affected Compound	Flag	A or P
PLCSS1-68282	Aroclor-1016 Aroclor-1260	178 (50-130) 186 (50-130)	022815-MHS-B000-R3-L4-C1 022815-MHS-B000-R3-L10-C1 022815-MHS-B400-R401-L1-C1 022815-MHS-B500-R505-L1-C1 022815-MHS-B700-R704Hall-L1-C1 022815-MHS-B700-R704-L5-C1 PBLKS1-68282	All TCL compounds	J (all detects)	P

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Florisil Cartridge Check

Florisil cleanup was not reviewed in this SDG.

XI. GPC Calibration

GPC cleanup was not reviewed in this SDG.

XII. Target Compound Identification

All target compound identifications were within validation criteria.

XIII. Compound Quantitation

All compound quantitations were within validation criteria.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

No field duplicates were identified in this SDG.

SMMUSD
Polychlorinated Biphenyls - Data Qualification Summary - SDG 1503051

SDG	Sample	Compound	Flag	A or P	Reason
1503051	022815-MHS-B000-R3-L4-C1 022815-MHS-B000-R3-L10-C1 022815-MHS-B400-R401-L1-C1 022815-MHS-B500-R505-L1-C1 022815-MHS-B700-R704Hall-L1-C1 022815-MHS-B700-R704-L5-C1	All TCL compounds	J (all detects)	P	Laboratory control samples (%R)

SMMUSD
Polychlorinated Biphenyls - Laboratory Blank Data Qualification Summary - SDG 1503051

SDG	Sample	Compound	Modified Final Concentration	A or P
1503051	022815-MHS-B000-R7-L1-C1	Aroclor-1254 PCBs, Total	330U ug/Kg 330U ug/Kg	A
1503051	022815-MHS-B000-R3-L4-C1	Aroclor-1254 PCBs, Total	1600U ug/Kg 1600U ug/Kg	A
1503051	022815-MHS-B000-R3-L10-C1	Aroclor-1254 PCBs, Total	1800U ug/Kg 1800U ug/Kg	A
1503051	022815-MHS-B700-R704Hall-L1-C1	Aroclor-1254 PCBs, Total	3800U ug/Kg 3800U ug/Kg	A
1503051	022815-MHS-B700-R704-L5-C1	Aroclor-1254 PCBs, Total	1800U ug/Kg 1800U ug/Kg	A

SMMUSD
Polychlorinated Biphenyls - Field Blank Data Qualification Summary - SDG 1503051

No Sample Data Qualified in this SDG

LDC #: 33878A3b
SDG #: 1503051
Laboratory: ALS Environmental

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 3-13-15
Page: 1 of 2
Reviewer: TR
2nd Reviewer: A

METHOD: GC Polychlorinated Biphenyls (EPA SW846 Method 8082)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A, A	
II.	GC Instrument Performance Check	N	
III.	Initial calibration/ICV	A SW, A	r2 / ≤20
IV.	Continuing calibration	A	≤20
V.	Laboratory Blanks	SW	
VI.	Field blanks	N	
VII.	Surrogate spikes	SW	
VIII.	Matrix spike/Matrix spike duplicates	SW	
IX.	Laboratory control samples	SW	LCS
X.	Field duplicates	N	
XI.	Compound quantitation/RL/~~LOQ/LODs~~	A	
XII.	Target compound identification	A	
XIII.	Overall assessment of data	A	

Note: A = Acceptable
N = Not provided/applicable
SW = See worksheet
ND = No compounds detected
R = Rinsate
FB = Field blank
D = Duplicate
TB = Trip blank
EB = Equipment blank
OTHER:

	Client ID	Lab ID	Matrix	Date
1	022815-JCES-BF-R18-L1-C1	1503051-01	Caulk	02/28/15
2	022815-JCES-BF-R18-L1-C2	1503051-02	Caulk	02/28/15
3	022815-JCES-BF-R18-L2-C1	1503051-03	Caulk	02/28/15
4	022815-JCES-BF-R19-L1-C1	1503051-04	Caulk	02/28/15
5	022815-JCES-BF-R19-L1-C2	1503051-05	Caulk	02/28/15
6	022815-JCES-BF-R19-L2-C1	1503051-06	Caulk	02/28/15
7	022815-JCES-BF-R23-L1-C1	1503051-07	Caulk	02/28/15
8	022815-JCES-BF-R23-L1-C2	1503051-08	Caulk	02/28/15
9	022815-JCES-BF-R23-L2-C1	1503051-09	Caulk	02/28/15
10	022815-JCES-BF-R23-L3-C1	1503051-10	Caulk	02/28/15
11	022815-JCES-BF-R22-L6-C1	1503051-11	Caulk	02/28/15
12	022815-JCES-BF-R22-L6-C2	1503051-12	Caulk	02/28/15
13	022815-JCES-BF-R22-L7-C1	1503051-13	Caulk	02/28/15
14	022815-JCES-BF-R22-L7-C2	1503051-14	Caulk	02/28/15
15	022815-MHS-B000-R7-L1-C1	1503051-15	Caulk	02/28/15
16	022815-MHS-B000-R7-L2-C1	1503051-16	Caulk	02/28/15

LDC #: 33878A3b
SDG #: 1503051
Laboratory: ALS Environmental

VALIDATION COMPLETENESS WORKSHEET
Level IV

Date: 3-13-15

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Polychlorinated Biphenyls (EPA SW846 Method 8082)

	Client ID	Lab ID	Matrix	Date
17 2	022815-MHS-B000-R3-L4-C1	1503051-17	Caulk	02/28/15
18 2	022815-MHS-B000-R3-L10-C1	1503051-18	Caulk	02/28/15
19 2	022815-MHS-B400-R401-L1-C1	1503051-19	Caulk	02/28/15
20 2	022815-MHS-B500-R505-L1-C1	1503051-20	Caulk	02/28/15
21 2	022815-MHS-B700-R704Hall-L1-C1	1503051-21	Caulk	02/28/15
22 2	022815-MHS-B700-R704-L5-C1	1503051-22	Caulk	02/28/15
23 1	022815-MHS-B700-R704-L5-C2	1503051-23	Caulk	02/28/15
24 1	022815-MHS-B700-R704-L2-C1	1503051-24	Caulk	02/28/15
25 2	022815-MHS-B000-R3-L4-C1MS	1503051-17MS	Caulk	02/28/15
26 2	022815-MHS-B000-R3-L4-C1MSD	1503051-17MSD	Caulk	02/28/15
27				
28				
29				
30				
31				

Notes:

1 1	PBLKS1-68235	5		9		13	
2 2	PBLKS1-68282	6		10		14	
3		7		11		15	
4		8		12		16	

LDC #: 33878A36

VALIDATION FINDINGS CHECKLIST

Page: 1 of 2
Reviewer: TM
2nd Reviewer: A

Method: Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. GC/ECD Instrument performance check				
Was the instrument performance found to be acceptable?				
III. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Was a linear fit used for evaluation? If yes, were all percent relative standard deviations (%RSD) ≤ 20%?		✓		
Was a curve fit used for evaluation? If Yes, what was the acceptance criteria used?	✓			
Did the initial calibration meet the curve fit acceptance criteria?	✓ X			TM 3-18-15
Were the RT windows properly established?	✓			
Were the required standard concentrations analyzed in the initial calibration?	✓			
IV. Continuing calibration				
Were Evaluation mix standards analyzed prior to the initial calibration and sample analysis?			✓	
Were endrin and 4,4'-DDT breakdowns ≤ 15%.0 for individual breakdown in the Evaluation mix standards?			✓	
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ 20%.0?	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Were extract cleanup blanks analyzed with every batch requiring clean-up?			✓	
Was there contamination in the method blanks or clean-up blanks? If yes, please see the Blanks validation completeness worksheet.	✓			
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?		✓		
If the percent recovery (%R) of one or more surrogates was outside QC limits, was a reanalysis performed to confirm %R?			✓	
If any %R was less than 10 percent, was a reanalysis performed to confirm %R?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.	✓			

Validation Area	Yes	No	NA	Findings/Comments
Was a MS/MSD analyzed every 20 samples of each matrix?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?		✓		
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?		✓		
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	
X. Target compound identification				
Were the retention times of reported detects within the RT windows?	✓			
XI. Compound quantitation/CRQLs				
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions, dry weight factors, and clean-up activities applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.		✓		
Target compounds were detected in the field duplicates.			✓	
XV. Field blanks				
Field blanks were identified in this SDG.		✓		
Target compounds were detected in the field blanks.			✓	

VALIDATION FINDINGS WORKSHEET

METHOD: Pesticide/PCBs (EPA SW 846 Method 8081/8082)

A. alpha-BHC	I. Dieldrin	Q. Endrin ketone	Y. Aroclor-1242	GG. Chlordane
B. beta-BHC	J. 4,4'-DDE	R. Endrin aldehyde	Z. Aroclor-1248	HH. Chlordane (Technical)
C. delta-BHC	K. Endrin	S. alpha-Chlordane	AA. Aroclor-1254	II. oxy-Chlordane
D. gamma-BHC	L. Endosulfan II	T. gamma-Chlordane	BB. Aroclor-1260	JJ. Mirex
E. Heptachlor	M. 4,4'-DDD	U. Toxaphene	CC. 2,4'-DDD	KK.
F. Aldrin	N. Endosulfan sulfate	V. Aroclor-1016	DD. 2,4'-DDE	LL.
G. Heptachlor epoxide	O. 4,4'-DDT	W. Aroclor-1221	EE. 2,4'-DDT	MM.
H. Endosulfan I	P. Methoxychlor	X. Aroclor-1232	FF. Hexachlorobenzene	NN.

Notes:_____

LDC #: 33878A3b

VALIDATION FINDINGS WORKSHEET
Blanks

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were all samples associated with a method blank?
Y N N/A Was a method blank performed for each matrix and whenever a sample extraction was performed?
Y N N/A Was there contamination in the method blanks? If yes, please see the qualifications below.

Blank extraction date: 3/4/15 **Blank analysis date:** 3/6/15
Conc. units: µg/Kg **Associated samples:** 1-16, 23-24 Qual U

Compound	Blank ID	Sample Identification								
	PBLKS1-68235	5x	15							
AA	100	500	330							
PCBs, Total	100	500	330							

Blank extraction date: 3/5/15 **Blank analysis date:** 3/9/15
Conc. units: µg/Kg **Associated samples:** 17-22 Qual U

Compound	Blank ID	Sample Identification								
	PBLKS1-68282	5x	17	18	21	22				
AA	836.7	4184	1600	1800	3800	1800				
PCBs, Total	836.7	4184	1600	1800	3800	1800				

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 33878A36

VALIDATION FINDINGS WORKSHEET
Surrogate Spikes

Page: 1 of 1
Reviewer:
2nd Reviewer:

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081A/8082A)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as N/A.

(Y) N N/A Were surrogates spiked into all samples, standards and blanks?

Y (N) N/A Were all DCB surrogate recoveries within advisory QC limits on each column.

Level IV/D ONLY

(Y) N N/A Were surrogate retention times (RTs) on each column within the established RT windows for all samples, standards and blanks?

#	Date	Lab ID/Reference	Column	Surrogate %R (Limits:) TCMX	Surrogate %R (Limits:) DCB	Associated Samples	Qualifications
				ϕ (45-124)	ϕ (40-140)	all - NB	No qual - > 1000x Dilution

TCX = Tetrachloro-m-xylene
DCB = Decachlorobiphenyl

Comments: _____

SUR.wpd

LDC #: 33878A3b

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates

Page: 1 of 1
Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

(Y) N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?
(Y) N N/A Was a MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?
Y (N) N/A Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?

#	Date	MS/MSD ID	Compound	MS %R (Limits)	MSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		25/26	V	Ø (40-140)	Ø (40-140)	( )	17	No qual - 5000x Dilution
		↓	BB	Ø (↓)	Ø (↓)	( )	↓	
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

MSD.wpd

LDC #: 33878A36

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples

Reviewer: JM
2nd Reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Were a laboratory control samples (LCS) and laboratory control sample duplicate (LCSD) analyzed for each matrix in this SDG? 099EE JM 3-18-15

Y N N/A Were the LCS percent recoveries (%R) and relative percent differences (RPD) within the QC limits?

Level IV/D Only

Y N N/A Was a LCS analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

#	Date	LCS/LCSD ID	Compound	LCS %R (Limits)	LCSD %R (Limits)	RPD (Limits)	Associated Samples	Qualifications
		PLCSS1-68282	V	178 (50-130)	( )	( )	17-22, PBLKS1-68282	J dets/p (all + PCBs, Total)
			BB	180 (↓)	( )	( )		(AA; PCBs, Total = det)
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
				( )	( )	( )		
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				( )	( )	( )		

LDC #: 33878A36

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: SM
2nd Reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The calibration factors (CF) and relative standard deviation (%RSD) were recalculated using the following calculations:

CF = A/C
Average CF = sum of the CF/number of standards
%RSD = 100 * (S/X)

Where: A = Area of compound
C = Concentration of compound
S = Standard deviation of calibration factors
X = Mean of calibration factors

#	Standard ID	Calibration Date	Compound	Reported CF (1.0 std)	Recalculated CF (1.0 std)	Reported CF (initial)	Recalculated CF (intial)	Reported %RSD	Recalculated %RSD
1	PC030515	3-6-15	PCB1260{5} #1	3.763e8	3.763e8	} see	attached	}	
			#2	3.583e8	3.583e8				
2									
3									
4									

Comments: Refer to Initial Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

INICLC.wpd

Method: PCB by EPA SW 846 Method 8082

Calibration Date	GC	Compound	Standard	(X) Response ratio	(Y) Concentration ratio
3/6/2015	Signal #1	PCB 1260 {5)	1	39111953	0.10
			2	9.66E+07	0.25
			3	1.78E+08	0.5
			4	3.76E+08	1.0
			5	7.21E+08	2.0
			6	1.07E+09	3.0

Regression Output	*Calculated*	*Reported*
Constant	*7011477.979*	*-11942000.000000*
Std Err of Y Est		
R Squared	*0.9997*	*0.997900*
Degrees of Freedom		
X Coefficient(s)	*356308231.551*	*362810000.000*
Std Err of Coef.		
Correlation Coefficient	*0.9998*	
Coefficient of Determination (r^2)	*0.9997*	

Copy of linear fit _voa

Method: PCB by EPA SW 846 Method 8082

Calibration Date	GC	Compound	Standard	(X) Response ratio	(Y) Concentration ratio
3/6/2015	Signal #2	PCB 1260 {5)	1	39849183	0.10
			2	9.50E+07	0.25
			3	1.86E+08	0.5
			4	3.58E+08	1.0
			5	7.36E+08	2.0
			6	1.13E+09	3.0

Regression Output	*Calculated*	*Reported*
Constant	*-2798119.861*	*-77469000.000000*
Std Err of Y Est		
R Squared	*0.9996*	*0.996700*
Degrees of Freedom		
X Coefficient(s)	*373534303.236*	*435740000.000*
Std Err of Coef.		
Correlation Coefficient	*0.9998*	
Coefficient of Determination (r^2)	*0.9996*	

Copy of linear fit _voa

LDC #: 33878A3b

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: [illegible]
2nd Reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference (%D) = 100 * (ave. CF - CF)/ave. CF
CF=A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

Standard ID	Calibration Date/Time	Compound	Average CF/ CCV Conc	Reported CF/Conc CCV	Recalculated CF/Conc CCV	Reported %D	Recalculated %D
03061511.D	3-6-15 17:40	PCB1260(5) #1	5.000	4.359	4.359	NR	12.8
		#2	↓	4.395	4.395	NR	12.1
03061530.D	3-6-15 22:37	PCB1260(5) #1	5.000	4.312	4.312	13.8	13.8
		#2	↓	4.462	4.462	10.8	10.8
03061541.D	3-7-15 1:42	PCB1260(5) #1	5.000	4.455	4.455	10.9	10.9
		#2	↓	4.652	4.652	7.0	7.0

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

NR = Not Reported

P:\8082\CONCLC.3S.wpd

LDC #: 33878A36

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: JN
2nd Reviewer: SM

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference (%D) = 100 * (ave. CF - CF)/ave. CF
CF=A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

Standard ID	Calibration Date/Time	Compound	Average CF/ CCV Conc	Reported CF/Conc CCV	Recalculated CF/Conc CCV	Reported %D	Recalculated %D
03091503.D	3-9-15 8:41	PCB1260(5) #1	5.000	4.389	4.389	12.2	12.2
		#2	↓	4.993	4.993	0.1	0.1
03091519.D	3-9-15 14:56	PCB1260(5) #1	5.000	4.665	4.665	6.7	6.7
		#2	5.000	5.152	5.151	3.0	3.0

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 33878A3b

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Page: 1 of 1
Reviewer:
2nd reviewer:

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: PBLKS1-68235

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
		μg/ml	μg/ml	Reported	Recalculated	
Tetrachloro-m-xylene	#1	0.05	0.032	NR	63.5	—
Decachlorobiphenyl	↓	↓	0.034	68.3	68.5	—
Tetrachloro-m-xylene	#2		0.031	62.2	62.1	—
Decachlorobiphenyl	↓	↓	0.034	NR	67.4	—

NR = Not Reported

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Tetrachloro-m-xylene						
Decachlorobiphenyl						

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Tetrachloro-m-xylene						
Decachlorobiphenyl						

Sample ID:

Surrogate	Column	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
Tetrachloro-m-xylene						
Decachlorobiphenyl						
Tetrachloro-m-xylene						
Decachlorobiphenyl						

Notes:

SURRCALC.wpd

LDC #:_____

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: [signature]
2nd Reviewer: [signature]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration
SA = Spike added
SC = Concentration

RPD = | LCS - LCSD | * 2/(LCS + LCSD)

LCS = Laboratory control sample percent recovery
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: PLCSS1-68235

Compound	Spike Added (ng/kg)		Spiked Sample Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
gamma-BHC										
4,4'-DDT										
Aroclor 1260	1666	NA	2047	NA	123	123				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 33878A36

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: [illegible]
2nd reviewer: [illegible]

METHOD: GC Pesticides/PCBs (EPA SW 846 Method 8081/8082)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A)(V_t)(DF)}{(CF)(V_o)(V_i)(\%S)}$ (Avg)

A	=	Area of the compound to be measured
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
CF	=	Calibration Factor of compound from initial calibration.
DF	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.

Example:

Sample I.D. 1 AA:

Conc. = $\frac{(0.615)(10)(100000)}{(2.13)(1)}$

= 288,732.3944 ≈ 290,000 mg/kg

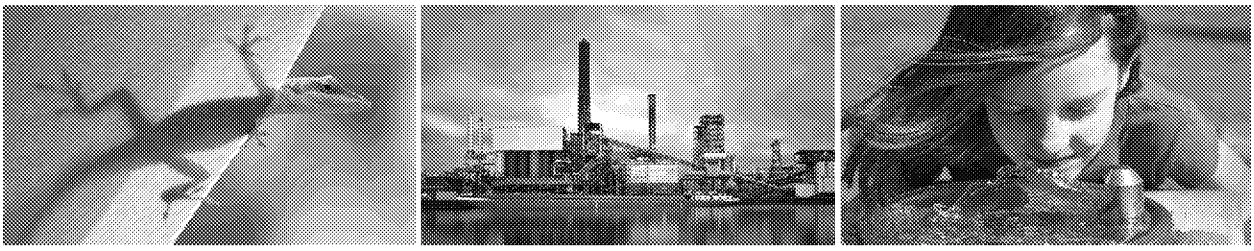
#	Sample ID	Compound	Reported Concentration (ug/ml)	Calculated Concentration (ug/ml)	Qualification
	PCB1254(1)	A = 138.1e4	0.435	0.4355	—
		CF 3.1710e8			
		2	0.549	—	—
		3	0.591	—	—
		4	0.743	—	—
		5	0.758	—	—
		Avg.	0.615	0.615	—

Note:

P:\8082\RECALC.wpd

Attachment C

ENVIRON's Sampling and Analysis Plan: Malibu High School and Juan Cabrillo Elementary School



Sampling and Analysis Plan

Malibu High School and Juan Cabrillo Elementary School
30215 Morning View Drive
Malibu, California

Prepared for:
Santa Monica Malibu Unified School District
1651 16th Street
Santa Monica, California

Prepared by:
ENVIRON International Corporation

Date:
February 2015

Project Number:
0433980P

ENVIRON

Contents

List of Appendices

1 Project Administration

ENVIRON will oversee the sampling and analysis of building materials at the Site as detailed in this Sampling and Analysis Plan.

1.1 Training Requirements & Certifications

Sampling and analysis at the Malibu High School and Juan Cabrillo Elementary School will be performed by trained environmental professionals. All ENVIRON employees engaged in PCB sampling will have completed Occupational Health and Safety Administration (OSHA) 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training and annual HAZWOPER refresher training.

1.2 Health & Safety Plan

A site-specific Health and Safety Plan (HASP) will be prepared prior to commencing building materials sampling and characterization. The HASP will describe safety organization, procedures, and personal protective equipment that are based on an analysis of potential site-specific hazards. The HASP will meet the requirements of 29 CFR 1910 and will include, but will not be limited to, the following components:

- Identification of key personnel: All on-site personnel involved with the characterization and remediation activities will be required to maintain OSHA 40-hour Hazardous Waste Training (29 CFR 1910.120) and the corresponding 8-hour refresher course update.
- Training: A description of health and safety training requirements for supervisory and on-site.
- Medical Surveillance: A description of appropriate medical examinations required for supervisor and on-site personnel.
- Site Hazards: A description of chemical, physical, and climatological hazards associated with the project.
- Work Zones: A description of the work zones that will be established during characterization activities.
- Personnel Safety Equipment and Protective Clothing: A description of personnel protective equipment (PPE) and protective clothing to be used and available on the Site.
- Equipment Cleaning: The methods and procedures for decontamination of personnel, materials, and equipment will be described.
- Standard Operating Procedures and Safety Programs as required by applicable portions of 29 CFR 1910.

1.3 Documentation and Records

While implementing this Sampling and Analysis Plan, ENVIRON employees will maintain the following documentation and records:

- Location of all samples collected;

- Rationale for selection of sample location;
- Photographs and/or videos of inspection findings and sampling activities;
- Chain of custody records for all samples sent to analytical laboratories; and
- A table summarizing all samples collected.

After analytical data for all samples have been received, ENVIRON will prepare a brief report summarizing the materials sampled and the results of sampling and analysis. This report will include a summary table with the PCB results from all samples submitted for analysis.

2 Sampling Methodology

ENVIRON will collect all building material samples in accordance with the procedures described in this section.

2.1 Sampling Methodology by Material Type

Sampling methodology will be determined by the type of material being sampled. The methodology for each type of material expected to be sampled is detailed below. In general, all sampling locations will be kept wet and polyethylene drop cloths will be used to minimize accidental impacts to surrounding building materials during the sampling process. Surface of sample location will be wiped down with a damp cloth prior to sampling to ensure removal of potential contaminants. Durable field sampling equipment will be decontaminated in accordance with 40 CFR 761.79 prior to collecting a sample at each sample location to mitigate the potential for cross-contamination of samples. Disposable equipment shall be handled in accordance with Section 2.6. Each component of the sampling device will be decontaminated or replaced with a new, dedicated, or disposable component prior to collecting samples for laboratory analysis.

2.1.1 Caulk

Caulk is a non-structural material used to fill cracks or holes, such as gaps in window and door frames, masonry, and joints in buildings. Between 1950 and 1979, PCBs were incorporated into caulk to increase its flexibility.

Soft porous surfaces (e.g. caulk) will be sampled in accordance with the USEPA Region I Standard Operating Procedure (SOP) for Sampling Porous Surfaces for Polychlorinated Biphenyls (May 2011), included as Appendix A of this document. Representative samples of caulk will be collected with a minimum frequency of one sample per potential sample location per room, up to 2 locations per room.

Samples will be obtained from soft porous surfaces at no more than 0.5-inch depth intervals using a metal chisel, sharp knife, or other cutting tool. A 3 to 10 gram (g) sample is ideal for laboratory analysis. The cutting tool will be decontaminated between samples. If adjacent media are inadvertently removed in the process of sample collection, ENVIRON will attempt to physically remove this media from the soft porous material prior to placement in the sample container.

2.2 Decontamination Procedures

Durable field sampling equipment will be decontaminated prior to each sample location to mitigate the potential for cross-contamination of samples. Each component of the sampling device will be decontaminated or replaced with a new dedicated or disposable component prior to collecting samples for laboratory analysis. All non-disposable sampling equipment will be subject to decontamination procedures prior to sampling, consistent with 40 CFR 761.79. If gloves come into contact with sample media, a new pair of clean, nitrile gloves will be used at each location.

In addition, limited decontamination of sampling locations will be performed subsequent to collection of samples. For example, a damp rag will be used to remove any excess powder generated during the sampling of hard porous surfaces via a drill.

2.3 PCB Best Management Practices - Sampling in an Active School

Dust generation during sampling should be minimized by using wet method and/or HEPA filter vacuuming. After sampling, the immediate surface should be vacuumed with a HEPA-filtered vacuum cleaner and then wiped with a wet cloth. The work area should be visibly inspected and re-cleaned if dust or debris is identified. Once the area is cleaned the sample location should be re-caulked.

The HEPA vacuum cleaner should be inspected and filter should be replaced as needed and as described in the April 2014 ENVIRON *Comprehensive PCB-Related Building Materials Inspection, Management, and Removal Plan for the Santa Monica-Malibu Unified School District* ("General Plan").

2.4 Sample Handling and Custody Procedures

All samples will be logged on standard chain-of-custody forms, shipped in laboratory-provided containers, and stored on ice in closed coolers, which will be sealed with chain-of-custody tape, for delivery to a state-certified, approved laboratory within 48 hours of sample collection. For this project, ENVIRON plans to submit samples to ALS Environmental Laboratory in Holland, Michigan.

2.5 Field Quality Control

Given the nature of the investigation (verification sampling of reported third party sample locations), field duplicates will not be collected. In addition, ENVIRON will provide the laboratory with sufficient sample material to conduct matrix spike and matrix spike duplicate analyses on ten percent of the total samples.

2.6 Waste Management and Disposal

Waste management includes handling, storing, containerizing, transporting (including providing and preparing manifests, bills of lading, etc.), and disposing of PCB waste streams. The PCB waste streams will be transported via a licensed waste hauler to a permitted chemical waste disposal facility as outlined below.

Liquids generated during decontamination or that are collected on polyethylene sheeting during dust suppression will be containerized on site, sampled, and designated for off-site disposal in accordance with 40 CFR 761.79.

Polyethylene sheeting, PPE (i.e.; gloves, etc.), and non-liquid cleaning materials (i.e., rags, etc.) will be managed and disposed of off-site in accordance with 40 CFR 761.61(a)(5)(v).

All wastes will be placed in covered waste containers (5-gallon buckets) or 55-gallon US Department of Transportation (DOT)-approved steel containers in accordance with applicable requirements in 40 CFR 761.65 and 40 CFR 761, Subpart K. All containers will be properly labeled and marked in accordance with 40 CFR 761.40 and will be stored in a locked, secure

area designated by the Santa Monica-Malibu Unified School District (SMMUSD or District) until characterized for off-site disposal.

All investigative derived waste (IDW) can be stored onsite for up to 30 days, unless it is transferred to an area meeting EPA's requirements for "permanent storage," and it is our understanding that SMMUSD does not have a waste storage area onsite meeting these requirements. Therefore, the District will transport IDW for offsite disposal within 30 days of generation.

If PCB concentrations greater than 50 ppm are found in materials at the Site, waste determinations will be made in consultation with USEPA Region IX.

Upon completion of waste profiling and acceptance to the respective facilities, PCB wastes will be loaded into transportation vehicles for shipment to the disposal facility.

The information provided above is for general informational purposes. It is understood that waste management and disposal will be conducted by others.

3 Analytical Method Requirements

All samples will be analyzed by EPA Method 8082 for Aroclors with soxhlet extraction by Method 3540. The laboratory method reporting limit for each of the Aroclors is approximately 30 µg/kg for a 3 gram aliquot, but the reporting limit varies depending on several factors, including the amount of sample and the degree of matrix interference.

Based on information from ALS Laboratory in Holland, Michigan, the laboratory will aim to achieve a laboratory control sample of 50% to 150% and a matrix spike recovery of 30% to 135%. If the results are outside of these targets, the validity and acceptability of the data will be evaluated.

3.1 Laboratory Quality Control Requirements

The analytical laboratory will process quality control samples with the samples submitted for analysis. The quality controls include method blank samples, surrogates, and laboratory control samples. The laboratory will provide a case narrative summary which describes the accuracy of the sample results and precision of the analytical procedure and whether there is any bias affecting the sample results.

In addition, the laboratory data reports will be submitted for internal data validation. The validation (Level III or Level IV) will summarize the laboratory samples and the laboratory QA/QC procedures and will provide an opinion on the validity and usability of the data. The analytical data will be evaluated for QA/QC based on the following document: *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review* (June 2008). The QA/QC evaluation of the data will focus on precision, accuracy, representativeness, completeness, and comparability relative to the project data quality objectives. A quantitative and qualitative assessment of the data will be presented and will identify potential sources of error, uncertainty, and bias that may affect the overall usability of the data.

4 References

ENVIRON International Corporation (ENVIRON). 2014a. *Comprehensive PCB-Related Building Materials Inspection, Management, and Removal Plan for the Santa Monica-Malibu Unified School District.* April 25. Available online: http://smmusd.org/PublicNotices/PCBComprehensivePlan042514.pdf.

ENVIRON. 2014b. *Site-Specific PCB-Related Building Materials Management, Characterization and Remediation Plan for the Library and Building E Rooms 1, 5, and 8 at Malibu High School.* July 3. Available online: http://www.smmusd.org/PublicNotices/PCBRemediationPlan070314.pdf.

ENVIRON. 2014c. *Supplemental Removal Information for the Library, Building E - Rooms 1, 5, and 8 and Building G - Room 506 at Malibu High School.* September 26. Available online: http://smmusd.org/PublicNotices/MHSSuppRemovalSSP092614.pdf.

United States Environmental Protection Agency (USEPA). 2008. *National Functional Guidelines for Superfund Organic Methods Data Review*. June. Available online: http://www.epa.gov/superfund/programs/clp/download/somnfg.pdf.

USEPA. 2011. *Standard Operating Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyls*. May.

USEPA. 2012. *Polychlorinated Biphenyls in School Buildings: Sources, Environmental Levels, and Exposures.* September.

USEPA, 2014. Letter from Jared Blumenfeld/USEPA to Sandra Lyon/SMMUSD. October 31.

Appendix A

Standard Operating Procedure for Sampling Porous Surfaces for PCBs

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
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Boston, MA 02109-3912

STANDARD OPERATING PROCEDURE FOR SAMPLING POROUS SURFACES FOR POLYCHLORINATED BIPHENYLS (PCBs)

May 2011

STANDARD OPERATING PROCEDURE FOR SAMPLING POROUS SURFACES FOR POLYCHLORINATED BIPHENYLS (PCBs)

The Office of Environmental Measurement and Evaluation
EPA New England – Region 1
11 Technology Dr.
North Chelmsford, MA 01863

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Reviewed by: Jerry Keefe – EIA Team Leader — Date: 05/23/11

Approved by: Dan Boudreau, EIA Chemistry Team Leader — Date: 5/23/11

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Revision Page

Date	Rev#	Summary of Changes	Sections
12/97	1	Initial Approval, draft	
3/20/08	2	Major update, only for PCBs, added TSCA sampling	All sections
7/17/08	3	Disposal of dust filter and decon of vac hose	11.0 and 14.0
5/04/11	4	Vacuum Trap Design and Clean-out	9.4

Table of Contents

1.0 Scope and Application

1.1 This Standard Operating Procedure (SOP) is suitable for collection of a porous matrix sample for analysis of Polychlorinated Biphenyls (PCBs).

1.2 This SOP describes sampling techniques for both hard and soft porous surfaces.

1.2.1 Hard surfaces, and most soft surfaces, can be sampled using an impact hammer drill to generate a uniform, finely ground, powder to be extracted and analyzed for PCBs. This procedure is primarily geared at providing enough sample quantity for two analyses. Hard porous surfaces include concrete, brick, asphalt, cement, sandstone, limestone, unglazed ceramics, and other possible PCB suspected material. This procedure may also be used on other softer porous surfaces, such as wood.

1.2.2 Soft surfaces can be sampled using a chisel or sharp knife to generate a representative sample to be extracted and analyzed for PCBs. Soft porous surfaces include wood, wall plasterboard, low density plastics, rubber, caulking, and other PCB suspected material.

1.3 This SOP provides for collection of surface samples (0 – 0.5 inches) and delineation of PCB contamination throughout the core of the porous surface. The procedure can be used to sample the porous surface at distinctly different depth zones.

2.0 Method Summary

A one-inch or other sized diameter carbide drill bit is used in a rotary impact hammer drill to generate a fine powder, or other representative sample, suitable for extraction and analysis of PCBs from porous surfaces. This method also allows the use of chisels or knives for the collection of samples from soft porous surfaces for PCB analysis.

3.0 Definitions

3.1 Field/Bottle Blank: A sample container of the same lot as the containers used for the environmental samples. This evaluates PCB contamination introduced from the sample container(s) from a common lot.

3.2 Equipment/Rinse/Rinsate Blanks: A sample that is collected by pouring hexane over the sample collection equipment after decontamination and before sample collection. The sample is collected in the appropriate sample container identical to the sample containers. This represents background contamination resulting from the field equipment, sampling procedure, sample container, and shipment.

3.3 Field Replicates/Duplicates: Two or more samples collected at the same sampling location. Field replicates should be samples collected side by side. Field replicates represent the precision of the whole method, site heterogeneity, field sampling, and the laboratory analysis.

3.4 Field Split Samples: Two or more representative subsamples taken from one environmental sample in the field. Prior to splitting, the environmental sample is homogenized to correct for sample heterogeneity that would adversely impact data comparability. Field split samples are usually analyzed by different laboratories (interlaboratory comparison) or by the same laboratory (intralaboratory comparison). Field splits are used to assess sample handling procedures from field to laboratory and laboratory comparability.

3.5 Laboratory Quality Samples: Additional samples that will be collected for the laboratory's quality control program: matrix spike, matrix spike duplicate, laboratory duplicates, etc.

3.6 Proficiency Testing (PT)/Performance Evaluation (PE) Sample: A sample, the composition of which is unknown to the laboratory or analyst, provided to the analyst or laboratory to assess the capability to produce results within acceptable criteria. This is optional depending on the data quality objectives. If possible, it is recommended that the PE sample be of similar matrix as the porous surface(s) being sampled.

3.7 Porous Surface: Any surface that allows PCBs to penetrate or pass into itself including, but not limited to, paint or coating on metal; corroded metal; fibrous glass or glass wool; unglazed ceramics; ceramics with porous glaze; porous building stone such as sandstone, travertine, limestone, or coral rock; low density plastics such as Styrofoam and low density polyethylene; coated (varnished or painted) or uncoated wood; painted or unpainted concrete or cement; plaster; plasterboard; wallboard; rubber; caulking; fiberboard; chipboard; asphalt; or tar paper.

3.8 Shipping Container Temperature Blank: A water sample that is transported to the laboratory to measure the temperature of the samples in the cooler.

4.0 Health and Safety

4.1 Eye, respiratory, and hearing protection are required at all times during sample drilling. A properly fitted respirator is required for hard porous surface sampling. A respirator is recommended whenever there is a risk of inhalation of either particulate or volatilized PCBs during sampling.

4.2 All proper personal protection clothing and equipment must be worn.

4.3 When working with potentially hazardous materials or situations, follow EPA, OSHA, and specific health or safety procedures.

4.4 Care must be exercised when using an electrical drill and sharp cutting objects.

5.0 Interferences and Potential Problems

5.1 This sampling technique produces a finely ground uniform powder, which minimizes the physical matrix effects from variations in the sample consistency (i.e., particle size, uniformity, homogeneity, and surface condition). Matrix spike analysis of a sample is highly recommended to monitor for any matrix related interferences.

5.2 Nitrile gloves are recommended. Latex gloves must not be used due to possible phthalate contamination.

5.3 Interferences may result from using contaminated equipment, solvents, reagents, sample containers, or sampling in a disturbed area. The drill bit must be decontaminated between samples. (see Section 11.0.)

5.4 Cross contamination problems can be eliminated or minimized through the use of dedicated sampling equipment.

6.0 Personnel Qualifications

6.1 All field samplers working at hazardous materials/waste sites are required to take a 40 hour health and safety training course prior to engaging in any field activities. Subsequently, an 8 hour refresher health and safety course is required annually.

6.2 The field sampler should be trained by an experienced sampler before initiating this procedure.

6.3 All personnel shall be responsible for complying with all quality assurance/quality control requirements that pertain to their organizational/technical function.

7.0 Equipment and Supplies

7.1 This list varies with the matrix and if depth profiling is required

Rotary impact hammer variable speed drill
1-inch or other suitable (1/2, 3/4, etc.) diameter carbide tip drill bits
Steel chisel or sharp cutting knife, and hammer
Brush and cloths to clean area
Stainless steel scoopulas

Aluminum foil to collect the powder sample
1 quart Cubitainer with the top cut out to collect the powder sample
Aluminum weighing pans to collect the powder sample
Cleaned glass container (2 oz or 40 mL) with Teflon lined cap
Decontamination supplies: hexane, two small buckets, a scrub brush, detergent, deionized water, hexane squirt bottle, and paper towels
Dedicated vacuum cleaner with a disposable filter or a vacuum pump with a dust filter
Polyethylene tubing and Pasteur pipettes
Sample tags/labels, custody seals, and Chain-of-Custody form

8.0 Sampling Design

8.1 A sufficient number of samples must be collected to meet the data quality objectives of the project. If the source of the PCB contamination is regulated under the federal TSCA PCB Regulations at 40 CFR Part 761, the sampler should insure that the sampling design is sufficient to meet any investigation or verification sampling requirements. At a minimum, the following is recommended:

8.1.1 Suspected stained area (s) should be sampled.

8.1.2 At each separate location, collect at least 3 samples of each type of porous surface, regardless of the amount of each type of porous surface present.

8.1.3 In areas where PCB equipment was used or where PCBs were stored, samples should be collected at a frequency of 1 sample/100 square feet (ft^2).

9.0 Sample Collection

9.1 Hard Porous Surfaces

9.1.1 Lock a 1-inch or another size diameter carbide drill bit into the impact hammer drill and plug the drill into an appropriate power source. For easy identification, sample locations may be pre-marked using a marker or paint. (Note: the actual drilling point must not be marked.) Remove any debris with a clean brush or cloth prior to drilling. All sampling decisions of this nature should be noted in the sampling logbook.

9.1.2 Use a Cubitainer with the top cut off or aluminum foil to contain the powdered sample. Begin drilling in the designated location. Apply steady even pressure and let the drill do the work. Applying too much pressure will generate excessive heat and dull the drill bit prematurely. The drill will provide a finely ground powder that can be easily collected.

9.1.3 Samples should be collected at ½-inch depth intervals. Thus, the initial surface sample should be collected from 0 – 0.5 inches. A ½-inch deep hole generates about 10 grams (20 mL) of powder. Multiple holes located closely adjacent to each other, may be needed to generate sufficient sample volumes for a PCB determination. It is strongly recommended that the analytical laboratory be consulted on the minimum sample size needed for PCB extraction and analysis.

9.1.4 Wall and Ceiling Sampling: A team of two samplers will be required for wall and ceiling sampling. The second person will hold a clean catch surface (e.g. an aluminum pan) below the drill to collect the falling powder. Alternatively, use the chuck-end of the drill bit and punch a hole through the center of the collection pan. The drill bit is then mounted through the pan and into the drill. For ceilings, the drill may be held at an angle to collect the powder. Thus the driller can be drilling at an angle while the assistant steadies the pan to catch the falling powder. As a precaution, it may be advantageous to tape a piece of plastic around the drill, just below the chuck, to avoid dust contaminating the body of the drill and entering the drill's cooling vents. Caution must be taken to prevent obstruction of the drill's cooling vents.

9.2 Soft Porous Surfaces

9.2.1 The procedure for the hard porous surface may be used for certain soft porous surfaces, such as wood.

9.2.2 Samples should be collected at no more than ½-inch depth intervals using a metal chisel or sharp cutting knife. Thus, the initial surface sample should be collected from 0 – 0.5 inches. It is important to collect at least 10 grams for analysis.

9.2.3 For soft porous surfaces, such as caulking and rubber, a representative sample can be collected using a metal chisel or sharp cutting knife.

9.3 Multiple Depth Sampling

9.3.1 Multiple Depth Sampling may not be applicable to certain porous surfaces, such as caulking.

9.3.2 Collect the surface sample as outlined in Section 9.1 or 9.2.

9.3.3 Use the vacuum pump or cleaner to clean out the hole.

9.3.4 To collect multiple depths there are two options.

9.3.4.1 Option one: drill sequentially ½-inch increments with the 1 inch drill.

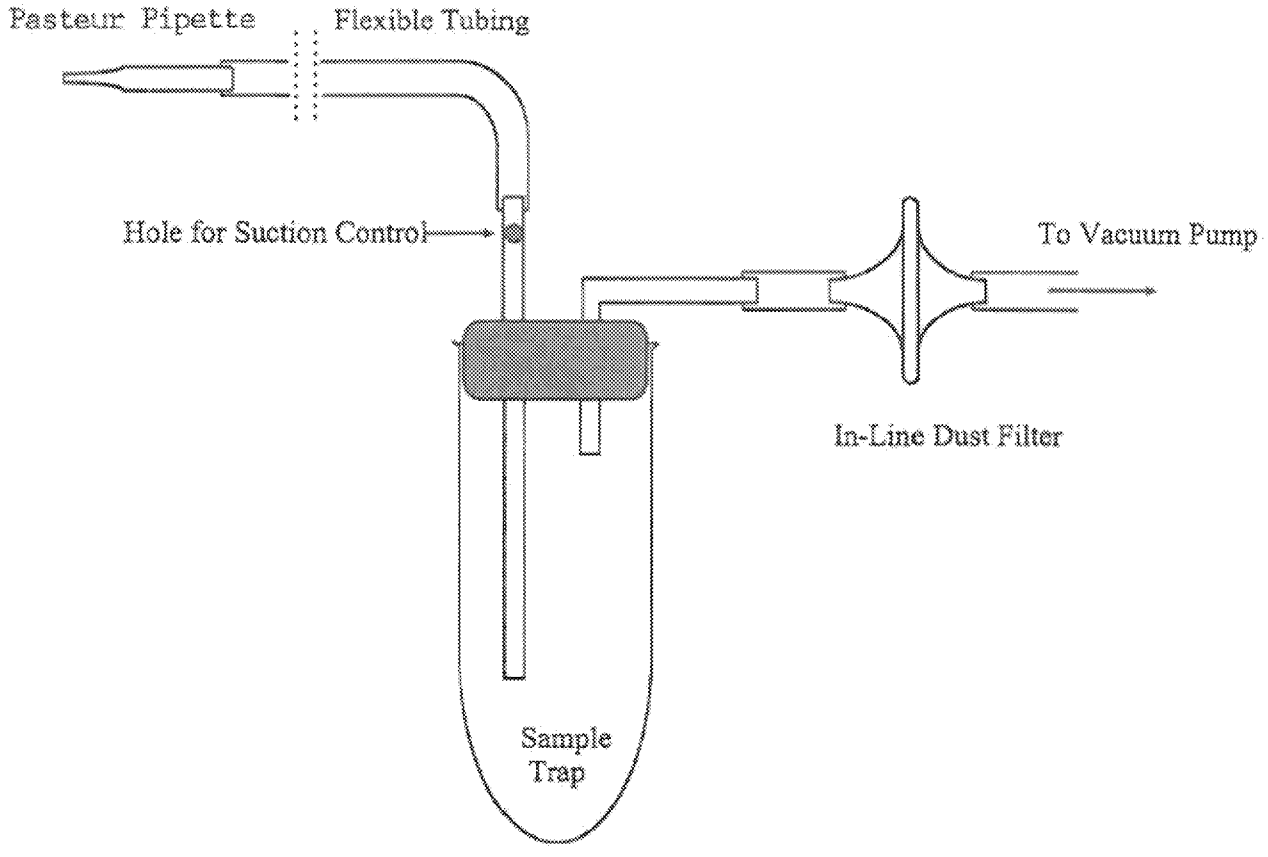
9.3.4.2 Option two: drill with the 1 inch bit and either make the hole larger or use a smaller bit to take the next ½- inch sample.

9.3.5 A stainless steel scoopula will make it easier to collect the sample from the bottom of the hole.

9.4 Vacuum Trap Design and Clean-out

The trap presented in Figure 1 is a convenient and thorough way for collecting and removing concrete powder from drilled holes. The trap system is designed to allow for control of the suction from the vacuum pump and easy trap clean-out between samples. Note, by placing a hole in the inlet tube (see Figure 1), a finger on the hand holding the trap can be used to control the suction at the sampling tip. Thus, when this hole is left completely open, there will be no suction, and the sampler can have complete control over where and what to sample. To change-out between samples the following steps should be taken: 1) the Pasteur pipette and piece of polyethylene tubing at the sample inlet should be replaced with new materials, 2) the portion of the rubber stopper and glass tubing that was in the trap should be wiped down with a clean damp paper towel (wetted with deionized water) and then dried with a fresh paper towel, 3) a clean pipe cleaner should be drawn through the glass inlet tube to remove any concrete dust present, and 4) the glass tube or flask used to collect the sample should swapped out with a clean decontaminated sample trap. Having several clean tubes or flasks on hand will facilitate change-out between samples.

Figure 1



Note: the holes should be vacuumed thoroughly to minimize any cross-contamination between sample depths and the bits should be decontaminated between samples. (See Section 11.0)

10.0 Sample Handling, Preservation, and Storage

10.1 Samples must be collected in glass containers for PCB analyses. In general, a 2-ounce sample container with a Teflon-lined cap (wide-mouth jars are preferred) will hold sufficient mass for most analyses. A 2-ounce jar can hold roughly 90 grams of sample.

10.2 Samples are to be shipped refrigerated and maintained at $\leq 6°C$ until the time of extraction and analysis.

10.3 The suggested holding time for PCB samples is 14 days to extraction.

11.0 Decontamination

11.1 Assemble two decontamination buckets. The first bucket contains a detergent and potable water solution, and the second bucket is for rinsate. Place all used drill bits, hose for the vacuum cleaner, and utensils in the detergent and water bucket. Scrub each piece thoroughly using the scrub brush. Note, the powder does cling to the metal surfaces, so care should be taken during this step, especially with the twists and curves of the drill bits. Next, rinse each piece with water and hexane. Place the rinsed pieces on clean paper towels and individually dry and inspect each piece. Note: all pieces should be dry prior to reuse.

11.2 Lightly contaminated drill bits and utensils may be wiped with a hexane soaked cloth and hexane rinsed for decontamination.

12.0 Data and Record Management

12.1 All data and information collection should follow a Field Data Management SOP or Quality Assurance Project Plan (QAPP).

12.2 Follow the chain of custody procedures to release the samples to the laboratory. A copy is kept with the sampling records.

12.3 The field data is stored for at least 3 years.

13.0 Quality Control and Quality Assurance

13.1 Representative samples are required. The sampler will evaluate the site specific conditions to assure the sample will be representative.

13.2 All sampling equipment must be decontaminated prior to use and between each discrete sample.

13.3 All field Quality Control (QC) sample requirements in a Sample and Analysis Plan (SAP) or QAPP must be followed. The SAP or QAPP may involve field blanks, equipment blanks, field duplicates and/or the collection of extra samples for the laboratory's quality control program.

13.4 Field duplicates should be collected at a minimum frequency of 1 per 20 samples or 1 per non-related porous matrix, whichever is greater.

14.0 Waste Management and Pollution Prevention

14.1 During field sampling events there may be PCB and/or hazardous waste produced from the sample collection. The waste must be handled and disposed of in accordance with federal, state, and local regulations. The dust filter, and tubing if a vacuum pump is used, is disposed after each site investigation. This waste will be treated as PCB waste if the samples are positive for PCBs. It may be possible to manage or dispose of the waste produced at the site where the work was performed. If the site does not meet regulatory requirements for these types of activities, the waste must be transported to a facility permitted to manage and/or dispose of the waste.

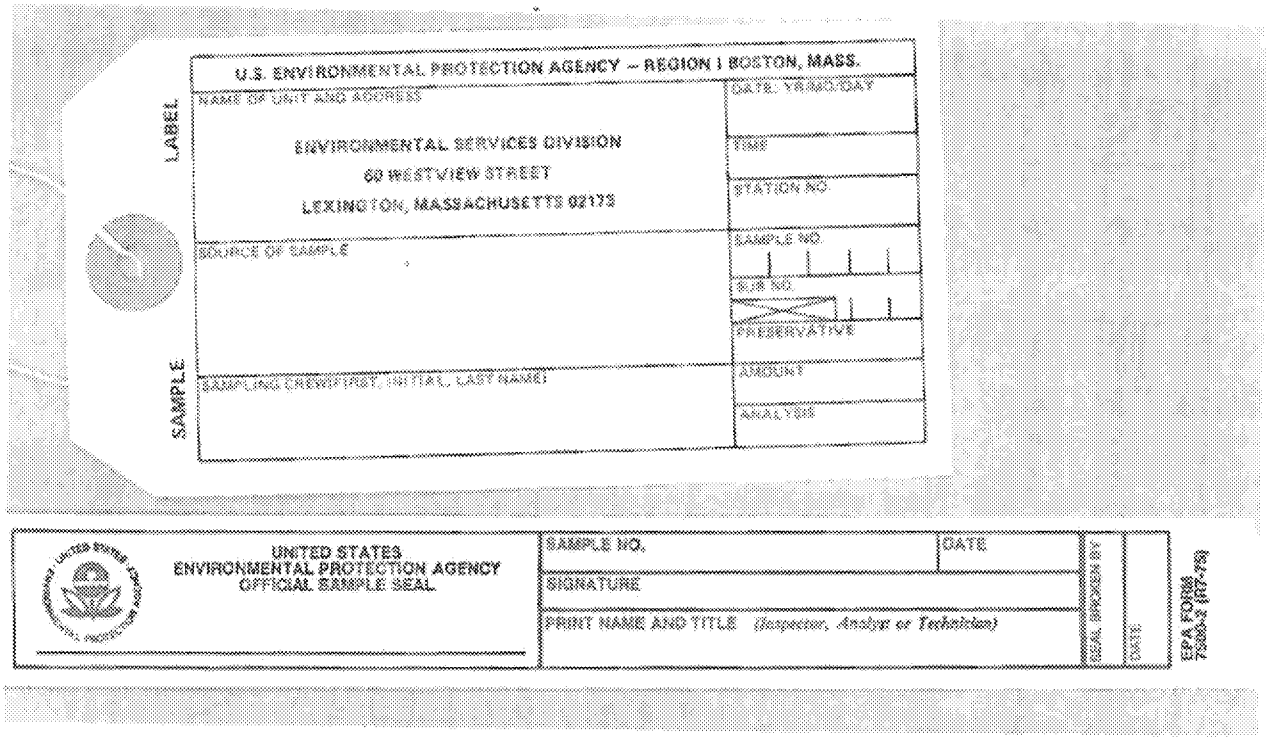
15.0 References

1. Guidance for the Preparation of Standard Operating Procedures for Quality-Related Operations, QA/G-6, EPA/600/R-96/027, November 1995.

2. 40 CFR Part 761 – Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution In Commerce, and Use Prohibitions

3. Sample Container and Holding Time: RCRA SW 846, Chapter 4, Table 4.1, Revision 4, February, 2007.

Example of Sample Label and Custody Seal



Example of Chain of Custody Form

ENVIRONMENTAL PROTECTION AGENCY
REGION 1

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME					NO. OF CONTAINERS							REMARKS
SAMPLERS: (Signature)													
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION								

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

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